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**VERBAL AFFIXATIONS IN INDONESIAN:
A SEMANTIC EXPLORATION**

by

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INTRODUCTION

0.1. THE STATUS OF INDONESIAN

Genetically, Indonesian or Bahasa Indonesia, henceforth BI, belongs to the Malayo-Polynesian or Austronesian family of languages. The Austronesian languages are generally subgrouped into: (1) Indonesian, (2) Melanesian, (3) Polynesian, and (4) Micronesian. According to this subgrouping the Indonesian subgroup includes BI and the regional languages of Indonesia such as Achinese, Batak, Javanese, etc., Malay, as well as languages of Madagascar, the Philippines, and Formosa (Mees 1954:24-26; Dyen 1962:13; 1971:5-17). We may note in passing that the term 'Indonesian' is ambiguous in that it refers to both the Austronesian subgroup of languages and BI itself. Our application of the term 'BI' in this work is motivated by this fact, as well as by the increasing occurrences of the term in the literature today.

BI is the official as well as the national language of the Republic of Indonesia, the population of which was estimated at 133, 650, 413 for the general election of 1977.¹ As the official language BI functions as a means of communication in which legislative, executive, and judicial affairs are administered.² Instruction in Indonesian schools, both state and private, from elementary up to university levels is carried out in this language, except for foreign language classes and a number of elementary schools in certain rural areas. In these latter schools regional languages are provisionally allowed to be utilised as media of instruction until the third grade on the consideration that BI is yet beyond the competence of the children of such areas. These children are brought up entirely in their mother tongues, the regional languages, which are to a considerable extent different structurally from BI.

As the national language BI functions as an invaluable effective tool of integrating the heterogeneous people of Indonesia within the framework of establishing and developing strong Indonesian nationalism. BI has enabled the people to carry out intercultural communications. The status of BI as the national language commenced when Malay was adopted and promulgated as BI by the Youth Congress held in Jakarta on October 28, 1928. One of the principal reasons for choosing Malay over any of the other regional languages such as Javanese and Sundanese was that this language was more familiar to the people. It had been used as a lingua franca all over the archipelago long before the sixteenth century when the Portuguese came to trade for spices, and had been taught at schools and widely used in speech as well as in writing, using primarily the Latin alphabet, during the later part of the Dutch colonial period, particularly after 1928, and then during the Japanese occupation from 1942 to 1945.³

The dual status of BI and the entailed functions, the uncontrolled influxes of foreign as well as regional linguistic elements into the language, particularly at the level of vocabulary, and the demand of modern science and technology for terminological precision have called for efforts of standardisation. The efforts actually began during the Japanese colonial period, when the Indonesian Language Committee was founded by the Japanese authorities for the purpose. Such efforts were carried on after independence by the Committee on Terminology. These Committees, however, were not as successful as had been expected, though some contributions have been made. Today the task of standardisation is executed by the National Language Institute under the Department of Education. One of the significant results of its work, which was officially announced in 1972, is the standardisation of the spelling system of BI using the Latin alphabet. One fundamental improvement made in the new orthography over the old one is that one-to-one relationships between the phonemes of contemporary BI and the graphemes are maintained to the maximum. The new orthography was devised in co-operation with Malaysian authorities. Thus, the two countries have the same orthography today.

The outline of the orthography is put in Appendix I of this study. We also include there a guide for the pronunciation of the Indonesian sounds.

0.2. WORKS ON AFFIXATION IN BI

Affixation may be defined as a morphological process of attaching an affix to a base morpheme. An affix is a bound morpheme which is called a prefix when attached initially, an infix when inserted within the base morpheme, and a suffix when attached finally. A base is a free morpheme which can be either simple or compound.

A discussion of affixation always occupies a place of indispensable importance in the grammar of BI, since it is the main wordforming mechanism in the language. A survey of the literature available to us indicates that affixation has been approached mostly in terms of the traditional grammar model. In this approach affixation is analysed entirely at the level of word formation in terms of surface structure. The meanings of the affixes are generally explained, independently, that is, there seems to be little consideration of their syntactic correlates. Besides, the morphophonemic aspects of the affixations are in general rather unsystematically described. The focal points in the traditional approach are (1) the determination of the base and the derived words in terms of parts of speech, and (2) the explanation or indication of the meanings conveyed by the affixes involved. Examples of this approach can be seen in Mees (1954), Alisjahbana (1964), and Slametmulyana (1969). A rather different approach was advanced by Fokker (1972). Fokker views affixations as being inseparable from syntax. Fokker's analysis contributes considerably to the understanding of the syntactic correlates of affixations in BI.

Studies in terms of descriptive or structural linguistics are scarce in publication. There are a few master's theses on the subject using the descriptive approach, but unfortunately, they are unavailable to us. Macdonald's *Indonesian reference grammar* (1976) contains a reliable descriptive analysis of the Indonesian affixations. The morphophonemic aspects of the affixations and the meanings of the affixes involved are satisfactorily described. The syntactic correlates of the affixations are also indicated. This work contributes much

to a better understanding of the affixations and their functions in the grammar. Ramlan's *Ilmu Bahasa Indonesia: morfologi* (1976) is another example of the descriptive analysis of Indonesian affixations. Despite the fact that this work demonstrates an appreciable attempt to describe the notional aspects of the affixes, it seems to be deficient in a well-defined semantic background. Besides, it pays too little attention to the syntactic correlates of the affixations.

In spite of the invaluable contributions of the above works as well as others of the same kind to the understanding of the Indonesian affixations, there are still some crucial problems left unsolved or inadequately handled. For example, how should such phenomena as the following be accounted for?

- (1) While it is acceptable to say *menguning become yellow*, *melebar become wide*, etc., where the prefix *meN-*⁴ is attached to the adjective bases *kuning yellow* and *lebar wide*, it is uncommon or strange to say *menyehat*, in which the base is also an adjective, that is, *sehat healthy*; and it is unacceptable to say *mencemas* in which the base is also an adjective, that is *cemas apprehensive, worried*.
- (2) From the adjective *tinggi high*, *ketinggian too high* and *meninggikan heighten* can be derived. The former is still an adjective, whereas the latter is a verb. How should this difference be better explained?
- (3) From the verb *duduk sit* we may derive the transitive verbs *menduduki* and *mendudukkan*. However, while sentence (1) is acceptable, sentence (2)a is not, and instead we have to say (2)b:
 - (1) *Tuti menduduki meja.*
Tuti make-seat table
 - (2) *a *Tuti mendudukkan meja.*
b *Tuti mendudukkan bayi itu di atas meja*
Tuti make-sit baby the on top table
Tuti made the baby sit on the table.
- (4) The prefixes *meN-* and *ber-* can sometimes be omitted. Thus, we may say *berlari* or *lari run*, and *mengambil* or *ambil take*.

The linguistic problems such as the above as well as the important socio-linguistic statuses and functions of BI as briefly described earlier have motivated us to carry out this study.

0.3. SCOPE OF PROBLEMS AND OBJECTIVES

From the point of view of their functions, affixations in BI may traditionally be divided into three major types, namely, (1) affixations which function to form verbs, (2) affixations which function to form adjectives, (3) affixations which function to form nouns. Due to the various complex problems involved in these types of affixations, which seem to require different methods of treatment, we would like to confine the present study only to types (1) and (2), which are further limited to the affixations involving simple verb and noun bases.

The problems exemplified earlier are most relevant to the scope we have just delimited. Taking such examples into consideration, the most crucial problems of affixation which concern us in the present study may be summed up as follows: (1) the determination of the constraints on the occurrence of

affixations; (2) the distinction between the words such as *meninggikan* and *ketinggian* with respect to the notion of derivation; (3) the determination of the syntactic correlates of the affixations; and (4) the discovering of the possible reason for the omission of *meN-* and *ber-*, and possibly the omission of other affixes as well. Due to the nature of these problems, we assume that a semantically based analysis will be more powerful. This assumption entails the ideas that: (1) the bases and the affixes involved in the affixations should be determined and specified in terms of semantic features, rather than merely in terms of the traditional parts of speech; (2) since the affixations seem to have regular syntactic correlates, the semantic analysis must also take account of semantic structures.

In view of the above problems, then, the main objectives of this study are: (1) to discover and specify the processes which trigger the affixations; (2) to discover and specify the types of semantic features involved in the processes; (3) to discover and specify the semantic constraints which trigger the constraints on the occurrences of affixations; (4) to discover the syntactic correlates of the affixations.

The theoretical framework which will be employed in our attempt to reach the above objectives will be discussed in the following chapter. Since, to our knowledge, the present work is the first attempt to approach affixations on a semantic basis, it is fair to say that it is preliminary in nature.

0.4. THE CORPUS

There are two main sources of data for the present study: (1) speakers of BI as primary sources and (2) written materials as secondary sources. The primary sources consist of seven speakers of BI. These informants were born of Deli-Malayan families and had been brought up and educated in BI since childhood. The region of Deli-Malay is situated in the eastern coast of Northern Sumatra Province (see map in Appendix II). The home town of these informants is Sitabat, a small town forty miles from Medan, the capital of the Province. At the time of this research their ages were between 25 and 36, and they were students of BI at the State Institute of Education⁵ in Medan. They had also had experience in teaching BI at Junior High Schools for several years. In addition to these informants, the present writer himself is included as a primary source. He was educated in BI since elementary school, and has lived in Indonesian speaking communities since childhood. He has also some experience in teaching this language at the Junior High School. We consider that the above personal data are sufficient to justify the reliability of the sources. It should also be noted that Deli-Malay is a region where a dialect of Malay is spoken by the Deli-Malayan communities. Thus, the mother tongue of the seven informants mentioned above is naturally much closer to BI than to other regional languages at any linguistic level.

The secondary sources are two daily newspapers in Medan, namely, *Mimbar Umum* and *Sinar Indonesia Baru*. The reasons for choosing these two newspapers are: (1) the language used in these papers is contemporary and basically the one used by educated people; (2) new word creations, including new uses of affixes often appear in newspapers; and (3) these two papers have relatively the largest circulations in the Province. In addition to these, we also use *Kamus Umum Bahasa Indonesia* (General Dictionary of Indonesian by Poerwadarminta, 1961 edition).

Since standard BI is still on the way, we do not use the term 'standard' in this study. Instead, we use the term 'contemporary'. By this term we mean that the data are from the language used by educated Indonesians in speech as well as in writing today.

One of the difficult problems in collecting data for this study was to elicit sentences from the informants containing the required affixes. To overcome this difficulty, we took the following measures:

- (1) the affixes relevant to this study were listed.
- (2) the informants were assigned to write freely as many sentences as possible using words containing a certain affix, and in each sentence the notion of the affix was to be different; the affix was decided beforehand, and the time allowed for the assignment was a week; at the end of every week the data were collected and, then, classified on the basis of the notions of the affix used in them.
- (3) a free discussion was arranged once in two weeks on various topics; these discussions were recorded, and the sentences containing the required affixes were selected out of the recordings.
- (4) the sentences that had been collected were organised finally, omitting all irrelevant materials; the sentences were also simplified where necessary so long as the notions conveyed by the required affixes were not lost or changed, and the basic syntactic requirements were maintained; most of the data presented in this study therefore are simple sentences.

The research was conducted from the middle of September until the middle of December 1975. The required samples which were not found in the collected data were provided by the present writer himself. The data from the newspapers, which were recorded from day to day for about three weeks, were used as supplementary materials.

0.5. ARRANGEMENT OF CHAPTERS

The main contents of this study consist of five chapters. Chapter I contains a discussion of the theoretical framework which will be applied in Chapters II, III, IV and V. Chapter II deals with the classification of the Indonesian basic verb types. Chapters III and IV are respectively devoted to the discussions of verb-to-verb and noun-to-verb derivations. Chapter V deals with inflections. These five chapters are preceded by an introduction and closed with some concluding statements. Before the concluding statements, however, there is a brief additional discussion of the notion of reflexivity in BI, which cannot be included in Chapter III, IV, or V, due to the different nature of the problems involved.

CHAPTER I

THEORETICAL ORIENTATION

1.0. PRELIMINARY REMARKS

In planning and undertaking a scientific project, an investigator has to follow certain well-defined procedures. These procedures are generally recognised as the scientific method comprising four main steps, namely, (1) observation of the data, (2) intelligent guesses concerning the structure of the data, (3) formation of an hypothesis, and (4) public verification of the hypothesis (Cook 1969:3-4). The first three steps are the basic *modus operandi* for the investigator, since through these steps he can formulate and propose a certain hypothesis about the problem he has investigated. The hypothesis will be tested in the fourth step. This last step may cause the investigator either to abandon or modify his hypothesis. The results of any scientific endeavour are subject to such an *experimentum crucis*, or else advances of science will not be attained.

It is also a common practice that, in order to facilitate the implementation of this project, the investigator applies a prevalent model of analysis, or attempts to eclectically incorporate two or more compatible models or parts of the models. His decision in this case will also depend upon the nature of the problem he is confronted with.

For the purpose of the present study, we take the second option. We will base our framework primarily on Chafe's model, but will eclectically incorporate into it certain elements of case grammar, particularly the Fillmorean notion of case roles (1969b; 1971). This incorporation is possible due to the fact that the two models have a common basic assumption of the existence of dependency relations between the verb and the noun in the semantic structure of language, despite their difference in question of centrality. Both models use cases to designate these relations, though the cases are not precisely the same in both in terms of type and number. Cook's case grammar matrix (1972b; 1973a; 1973b; 1974a,b) which is based on an incorporation of Chafe's and Fillmore's model, will be used as a model for the classification of Indonesian verbs in this study. The choice of this eclectically incorporated model of analysis is based on the consideration of the problems outlined in the Introduction, which will be further justified in the coming sections and chapters.

1.1. Chafe's model in general

Chafe conceives language as a "way of converting meaning into sound" (1970: 55). Meaning is understood as the linguistic term for the human concept of the universe. This conception of language has led Chafe to the postulation that meaning, and thus semantics, is the "crucial component of language" (1970b:73). In its function of converting meaning into sound, language is viewed as consisting of a sequence of processes, of which the initial point is naturally the domain of meanings or the semantic component. The processes are specifiable in the main into semantic structure formations and postsemantic processes or transformations. The formation of semantic structures then is in the semantic component. The well-formedness of surface structures and phonetic representations is to a greater extent determined by the well-formedness of the semantic structures. Furthermore, the processes, which can be viewed as reflecting the speaker-hearer's mental processes or competence in terms of Chomsky, are assumed to be universal. The semantic formations, which are the core of Chafe's model, include processes of feature (unit) specification and of constituting verb-noun relations, lexical unit formation, derivation, and inflection.

Chafe's conception of language, which may be regarded as "semanticism", is a proposal counter to the structuralist theory in which the processes of formation are postulated to be located in the phonological component or surface structure. It is also a serious argument against the "syntacticism" as proposed by Chomsky (1957; 1965) in which deep structure is considered to be central to language, and semantics is regarded as interpretive. Chafe's refusal to accept the assumption that different surface structures of identical meanings have identical semantic (deep) structures is one of the differences between him and other generative semanticists such as Lakoff, despite their common assumption of the centrality of verb or predicate.

The formulation of Chafe's conception of language structure begins with a philosophical assumption:

....that the total human conceptual universe is dichotomized initially into two major areas: one, the area of the verb, embraces states (conditions, qualities) and events; the other, the area of the noun, embraces 'things' (both physical objects and reified abstractions). Of these two, the verb will be assumed to be central and the noun peripheral.

(1970b:96)

With this assumption he has established his fundamental notion of semantic structure constituted by two semantic units, verb and noun, and in which the verb dictates the presence of the noun.

As pointed out above, the processes of semantic formation are the core of Chafe's model, and this is basically what makes the model distinct from others, as Langacker (1972:160) concludes. Of particular relevance to the present study are the processes constituting verb-noun relations, derivation, and inflection. These processes will be discussed further below, since they will be the backbone of the framework we are going to apply.

1.2. Verb-noun dependency relations

That semantics is central to language analysis, as Chafe maintains, can be considered as a general consensus of opinion among linguists today, although it has not yet been accepted by all. In the present study, too, we conform to this

consensus. As we indicated in the above brief account of Chafe's model, semantic structures are generated by several processes of semantic formation. The major semantic units constituting the semantic structures are the verb and the noun, and in these structures the verb is central, that is, it dictates the presence of the noun. We find Chafe's arguments (1970b:97-98) in defending this position of verb centrality rather persuasive. He points out, for instance, that if one is to tell the meaning of the sentence 'The chair laughed', one does it by interpreting 'chair' as a personified object taking the feature 'animate', and this is due to the use of the verb 'laugh' which normally designates an action performed by a human being. Langendoen (1970:46-47) also gives support to this position. He notes that we may substitute meaningless tokens such as letters of the alphabet for the subject and object of a sentence without destroying the essential meaning of the sentence, but when we replace the verb in a similar manner the meaning of the sentence will be substantially lost.

The phenomenon of verb centrality seems to be also found in BI. Silitonga (1973:162) suggests that Batak, BI, Malaysian, Javanese, and Minangkabau are verb-signalling languages on the basis of the fact that in Batak, which is of the same family membership as the rest of the cited languages, movement transformations are generally signalled by certain changes in the verb forms in sentences. We may as well present the following Indonesian sentences as examples showing that a change in the semantic features of the verb, which is regularly marked in the surface structure, results in a substantial change of interpretation of the sentence as a whole. On the other hand, a change in the semantic features of the noun does not affect the essential meaning of the sentence.

- (3) a Burung itu makan padi.
 bird the eat rice
 The bird eats rice.
- b Burung itu memakan padi.
 The bird repeatedly eats rice.
- c Burung itu makan padi-padian
 The bird eats rice-like grain.

In (1)b the verb takes the prefix *meN-* and the suffix *-i*. The prefix *meN-* is semantically vacuous (we will discuss this in Chapter III), and the suffix *-i* conveys the notion of 'repeatedly'. This meaning is added to the semantic features of the verb *makan*. The additional meaning affects the interpretation of the sentence as a whole. Sentence (3)a is ambiguous, unless it is put in a context of discourse. It conveys either the generic meaning that the bird belongs to the rice-eating class of birds or that the bird performs the action of eating rice in a certain place at a certain time. Sentence (3)b, on the other hand, conveys the meaning that the bird performs the action of eating rice repeatedly, and that the object noun is understood as taking the feature 'plural'. In (3)c, the semantic feature of the object noun is changed, and the change is morphologically marked. This change, however, does not affect the meaning of the sentence as a whole, that is, the semantic change that has occurred to the object noun does not permeate the whole sentence. The notion of a verb centrality in semantic structures obviously points to the existence of verb-noun dependency relation in which the verb, with its selectional feature, dictates the presence of the noun. In terms of Hays' dependency theory (1964: 513), the verb is the governing element and the noun, which is finite in number, is the dependent element or valence. Though viewed from different angles and expressed in different terms, the notion of verb-noun dependency relations has

also been developed by other linguists such as Kholodovich (1960), Fillmore and other case grammarians, as well as generative semanticists like Lakoff, McCawley, and their followers.

It should be noted that Chafe speaks of verb and noun in terms of semantic structure or configuration. To designate the relations carried by the noun Chafe uses the role terms agent, patient, experiencer, etc., which are essentially what Fillmore and other case grammarians call cases or propositional cases or roles. On the basis of this fact, it is obvious that basically it is in terms of these cases that the two models can be incorporated into one.

1.3. Basic verb types

There are two major types of rules of semantic formation proposed by Chafe, which generate semantic structures. These rules may be viewed as base rules in terms of Chomskian transformational theory. The first type deals with the specification of verb selectional features, which in essence results in the classification of basic verb types. The rules of this type are the following (1970b:90-103, 146-161):

- (S9-1) V —→ state
- (S9-2) V-state —→ (process)
 action
- (S9-3) V-process —→ ambient
- (S12-1) V-action —→ experiential
- (S12-4) V<sub>{state
 process }</sub> —→ benefactive
 -ambient
- (S12-11) V-process —→ completable
- (S12-15) V-state —→ locative

Rule (S9-1) states that a verb may be further specified as state. The second rule states that a verb which is not a state is either a process, an action, or an action-process. The third rule states that a verb which is not a process may be further specified as ambient. The selectional feature 'ambient' is related to meteorological events such as 'hot' in 'It's hot'. An ambient verb such as 'hot' does not require any case. In determining the three primary major verbs, state, process, and action, Chafe applies 'rules of thumb' besides introspection. Thus, when an object or thing is in a certain condition or state, the verb involved in the sentence expressing the notion is specified as a state verb, that is, the verb has the intrinsic selectional feature 'state'. The answer to the question 'What happened?' is a process verb, and the answer to the question 'What did N do?' is an action verb. These questions are what Chafe means by 'rules of thumb'. With the above rules the various possible combinations of verb selection features can be generated, and in this way the basic verb types are established. On the basis of these verb types, the second type of rules, which finally generate the semantic structures, are formulated as follows (1970b: 102-163, 146-161):

(S9-4)	V state process -ambient	→	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border-top: 1px solid black; padding-top: 2px;">V state process</div> <div style="border-top: 1px solid black; padding-top: 2px;">pat N</div> </div>
(S9-5)	V action -ambient	→	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border-top: 1px solid black; padding-top: 2px;">V action</div> <div style="border-top: 1px solid black; padding-top: 2px;">agt N</div> </div>
(S12-3)	V experiential	→	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border-top: 1px solid black; padding-top: 2px;">V experiential</div> <div style="border-top: 1px solid black; padding-top: 2px;">exp N</div> </div>
(S12-6)	V benefactive	→	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border-top: 1px solid black; padding-top: 2px;">V benefactive</div> <div style="border-top: 1px solid black; padding-top: 2px;">ben N</div> </div>
(S12-7)	V action	→	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border-top: 1px solid black; padding-top: 2px;">V action</div> <div style="border-top: 1px solid black; padding-top: 2px;">ben N</div> </div>
(S12-8)	V process action	→	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border-top: 1px solid black; padding-top: 2px;">V process action</div> <div style="border-top: 1px solid black; padding-top: 2px;">inst N</div> </div>
(S12-13)	V completable	→	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border-top: 1px solid black; padding-top: 2px;">V completable</div> <div style="border-top: 1px solid black; padding-top: 2px;">comp N</div> </div>
(S12-17)	V locative	→	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border-top: 1px solid black; padding-top: 2px;">V locative</div> <div style="border-top: 1px solid black; padding-top: 2px;">loc N</div> </div>

The above rules obviously state the dependency relations between the verb and the noun in the structures. The case required by each basic verb is explicitly provided. According to these rules some of the cases are obligatory, that is, (S9-4) to (S12-6) and (S12-17), and others are optional, that is, (S12-7) to (S12-13). It should be noted that the case Instrument is different from Experiencer, Beneficiary, and Location, in that the intrinsic feature 'instrumental' is not found in any verb, thus, the rule states that the case is optionally required by an action-process verb.

With the above rules, except for Rule S12-8, Chafe has in effect established twelve major basic verb types in English, upon each of which a certain case or a combination of two or three cases is dependent. The verb types and the required cases can be seen in Table 1 below. In the present study, we will subscribe to the view of verb-noun dependency relations as discussed in 1.2. We will also basically adopt the notion of verb types proposed by Chafe above, but it will be modified in conformity with Cook's notion of verb classification as described in his case grammar matrix. The modifications will be discussed in the following section.

Table 1: Basic verb types		
	Basic Verb Types	Required Cases
(1)	state	Patient
(2)	process	Patient
(3)	action	Agent
(4)	action-process	Agent-Patient
(5)	state-experiential	Patient-Experiencer
(6)	process-experiential	Patient-Experiencer
(7)	state-benefactive	Patient-Beneficiary
(8)	process-benefactive	Patient-Beneficiary
(9)	action-process-benefactive	Agent-Patient-Beneficiary
(10)	state-completable	Patient-Complement
(11)	action-completable	Agent-Complement
(12)	state-locative	Patient-Locative

1.4. Modifications

1.4.1. Predicate nouns

Before proceeding with the discussion of the modifications, we would like to state our position concerning predicate nouns.

Among generative semanticists such as Lakoff (1966) and case grammarians like Fillmore (1971:37), it is a common view that the propositional term 'verb' or 'predicator' includes what is known as verbs, adjectives, and nouns (as predicate nouns) in the surface structure. From Chafe's illustrative examples (1970b) it is obvious that he conforms by and large to this view. With respect to the predicate noun, however, he presents a different analysis. He considers a predicate noun as a state derived from a noun by adding a special derivational feature 'predicativiser' (1970b:143). First, it is theoretically justifiable. The selectional feature 'state' is intrinsically attributed to a verb, therefore, if a noun appears to have this feature, it must be a derived one. Second, it also has intuitive justification, as can be seen in the following Indonesian sentences:

- (4) Jenderal itu kaya.
general the rich
The general is rich.
- (5) Bapaknya (seorang) jenderal.
father-his (a-person) general
His father is a general.

In (4) the noun *jenderal* is not a predicate, but it is an Object or Patient. In this sentence, it is conceived that the object designated by *jenderal* is a human object wearing an officer's uniform, and this human object is rich. In (5), on the other hand, the noun *jenderal* is a predicate. In this sentence, *jenderal* is not a human object wearing an officer's uniform, at least not primarily, but the condition or quality of a high-ranking officer. It is in terms of this state or quality that *bapaknya* is perceived. Therefore, the noun *jenderal* has obviously attained the verb selectional feature 'state' in its role as a predicate. Hence, there is reason to believe that it is a derived state.

1.4.2. Patient and complement

We consider that the Fillmorean term Object is more appropriate than Chafe's term Patient on the grounds that it is more general. Besides, the term Object does not convey the ordinary sense of 'patient' so that it will not be mistaken only for an object which is affected by an action. Chafe, as we can see in Table 1, also proposes that the Complement is a relational category required by a state-completable or an action-completable verb. This proposal is based on the fact that in English we have sentences such as 'The book weighs a pound' and 'Mary sang a song' (1970b:156-157). The former contains a state-completable verb 'weigh', therefore the complement 'a pound' is present. In the latter, the verb is an action-completable, i.e., 'sang', and the complement is 'a song'.

Our investigation of the Indonesian verbs indicates that these verb types do not exist. The concepts conveyed by the above examples, for instance, are expressed in this language respectively as follows:

- (6) Berat buku itu satu pon.
 heavy book the one pound
 The weight of the book is one pound.
- (7) Maria menyanyikan satu lagu.
 Mary sing a song
 Mary sang a song.

There is no verb in BI which is equivalent to the English verb 'weigh'. Therefore, in (6) the de-adjectival noun berat, which is equivalent to the English deverbal noun 'weight' is put together with the topic noun buku to form a genitive noun phrase functioning as the surface subject, and the noun phrase satu pon designating the weight quantity is the surface predicate. The predicate is a state verb and therefore the genitive noun phrase or the surface subject represents the Object case. In (7), the noun phrase satu lagu represents the Object case, since the verb menyanyikan is a causatively derived action-process verb. These two sentences then do not contain any completable verb. The above facts lead us to a consideration that Complement as defined by Chafe is not necessary for the purpose of the present study. It may as well be noted that the facts seem to contribute a support to Cook's proposal (1972b:35) to subsume Patient and Complement under Object.

1.4.3. Action verbs

There are five basic verb types which Chafe seems to consider as primary, namely, state, process, action, action-process, and ambient (Chafe 1970b:98-102). The distinction between an action and an action-process verb according to Chafe resides in the fact that the former does not have a Patient in its semantic structure besides the Agent, whereas the latter does. Furthermore, from the illustrative sentences provided by Chafe, it appears that the Patient of an action-process verb is obligatorily realised in the surface structure. There is therefore reason to suspect that Chafe's postulation of the existence of action and action-process verbs is mainly motivated by the surface structure distinction, and this seems to be inconsistent with the view of semantic centrality he advocates.

Our position in the present study is different from that of Chafe. We consider that Object is obligatorily present in the semantic structure of any action verb. This consideration is based on an empirical as well as an

intuitive ground. Empirically, whenever an action takes place, in essence there must be an instigator or cause of the action, and there must be something which is affected by the action in some way or other. Intuitively, in sentences such as the following, we still feel the presence of Objects:

- (8) Kuda itu lari.
 horse the run
 The horse ran.
- (9) Mereka sedang makan.
 they going-on eat
 They are eating.

Kuda and mereka in the above sentences are agent nouns. They specify the instigators of the actions. In sentence (8), kuda is the one who does the action of running, and, at the same time, who is caused to run. Thus, an Agent and an Object are present in the semantic structure of the verb lari, but they are coreferential. Due to this coreferentiality, the Object is totally covert. Sentence (9) means that mereka sedang makan makanan *They are eating food*. The verb makan, then, has an Object in its semantic structure. The Object is partially covert, because it is deletable. In other words, its presence in the surface structure is optional.

The obligatory Object is also suggested by John Anderson (1971b:43-45). Cook (1973a:68-70; 1974b) also holds the same view. This position seems to be one of the reasons why Cook proposes to subsume Patient and Complement under Object as cited earlier.

One significant consequence of the view that Object is obligatory in the semantic structure as discussed above is obviously that it is no longer necessary to distinguish between an action and an action-process verb as Chafe does. In other words, in the semantic structure any action verb is an action-process verb, hence there is a reduction in the number of the primary basic verb types. With respect to the terms, one can use either action or action-process. In the present study, for the reason of simplicity, we will use the term action.

1.4.4. Ambient verbs

Ambient verbs according to Chafe as cited earlier are related to meteorological conditions or events. In English, an ambient verb does not require any special case in its semantic structure, but it is accompanied in the surface structure by the pronoun 'it'. The pronoun, however, does not refer to any particular thing, but to the total meteorological environment. Chafe proposes that an ambient verb may be a state or an action. The verb 'hot' in 'It is hot' is an ambient state, and the verb 'rain' in 'It is raining' is an ambient action.

There are two arguments that may be raised against Chafe's proposal. First, the verb 'rain' does not seem to meet fully the requirements for an action, since it cannot be used to construct a command imperative sentence (Lakoff 1966). Second, in postulating the ambient verb, Chafe seems to be also mainly motivated by the surface structure representation. We do not see a good reason for not postulating the existence of an Object in the semantic structure of an ambient verb such as 'hot', even though the Object is represented by 'it' in the surface structure.

The above arguments are also supported by evidences from BI. Let us observe the following sentences:

(10) Hari sedang hujan.
 day going-on rain
 It is raining.

(11) Udara dingin.
 It is cold.

The verbs hujan and dingin are respectively equivalent to the English verbs 'rain' and 'cold'. As we can see in the above sentences, in BI the nouns hari and udara are the surface subjects. The pronoun equivalent to 'it' is either dia or itu, but none of these pronouns can be used as the surface subject of the meteorological verbs.

The verb hujan (10) is preceded by the temporal modal sedang. With this modal the verb is equivalent to the English progressive form 'is raining'. However, the verb cannot be used to construct a command imperative sentence. Sentence (12), for instance, is unacceptable:

(12) Hujan!

We may conclude, therefore that hujan is not an action, but a process verb. Empirically, it is also justifiable, since when it rains, there is indeed a process of change in the meteorological environment. The conclusion seems to apply also to English. The verb dingin on the other hand cannot take the temporal modal sedang, neither can it be used to construct a command imperative sentence. Sentences (13)a, and b are unacceptable:

*(13) a Udara sedang dingin.
 b Dingin!

The verb dingin, then, is a state like the English verb 'cold'.

On the basis of the above evidence, in the present study we hold the view that meteorological verbs are either states or processes.

1.4.5. Experiential verbs

According to Chafe (1970b:45), an experiential verb requires the presence of an Experiencer case specifying someone who is mentally disposed in some way. On the basis of data from English, he hypothesises that only intrinsic state and process verbs can be further specified as experiential, and that experiential action verbs are causatively derived from experiential processes (1970b:146).

From the illustrative examples he provides, it appears that Chafe does not take verbs of saying like 'say', 'tell', and 'ask' into account. Besides, he does not state explicitly the distinction between the Patient accompanying an experiential verb and that accompanying any other type of verbs. Cook (1972b; 1973a:71), following and extending Fillmore's notion of Experiencer case (1971), states that the Object accompanying an experiential verb specifies the content of, or the stimulus for the experience related to a psychological state or event of sensation, emotion, or cognition. We consider that this definition is helpful not only in identifying the Object case itself, but also the Experiencer, and, thus, the experiential verb.

In the present study, then, we will modify Chafe's notion of Experiencer by incorporating into it the Fillmorean notion as captured by Cook's definition cited above. With respect to verb types, this modification has the effect that there are not only intrinsic state and process experiential verbs, but also intrinsic action experiential verbs.

1.4.6. Locative verbs

As can be seen from rule Sl2-15 listed in section 1.3., Chafe proposes that a state verb can be optionally further specified as locative. On the basis of data from English, he considers that the intrinsic state-locative verbs are essentially only what are usually known as locative prepositions such as 'in', 'on', 'under', etc. He hypothesises that there are no nonstate verbs which are intrinsically locative. Nonstate locative verbs are derived from nonlocative roots by the addition of the derivational unit 'locativiser' (1970b:161-162).

Chafe's view about prepositions seems to be similar to that of Becker (1969), except for the fact that Becker makes a distinction between stative and directional or motional prepositions.

Two problems relevant to the present study come to mind with respect to the above view. The first one is illustrated in (14):

- (14) Ayah ada di rumah.
 father present at home
 Father is at home.

The approximate equivalent of the verb *ada* is *be present* or *exist*.⁶ We assume that *ada* is a basic verb, since we can derive the verb *mengadakan* *make present* or *exist* from it. It can also be nominalised into *adanya* *presence* and *pengadaan* *way of making an existence*. Sentences like (14) are common in BI, and the verb *ada* is always accompanied by a locative noun preceded by a locative preposition. If we accept the proposal that locative prepositions are verbs, we will be confronted with the difficult question of how to account for the above derivations.

The second problem is exemplified by sentences (15):

- (15) a *Dia duduk di kursi.*
 He sat on a chair.
 b *Dia mendudukkan bayi itu di kursi.*
 he make-sit baby the on chair
 He made the baby sit on a chair.

The verb *duduk* *sit*, as in English, is accompanied by a locative noun preceded by a preposition. If we accept the above proposal that a nonstate-locative verb is derived from a state-locative by adding 'locativiser', we will have the configuration *duduk di sit on*, which is derived from *duduk sit*. How, then, to account for the derived verb *mendudukkan* *make sit* as in (15)b?

In addition to the above problems, our acceptance of Chafe's proposal will be a flaw in the Fillmorean notion of case marking which is incorporated in the framework of the present study.

On the basis of the arguments discussed above, we hold a different position. We consider that there are intrinsic state, process, and action locative verbs. Besides, we assume that there is no verb in BI which is equivalent to the English

copula 'be'. The verb *ada*, which is regarded by some Indonesian grammarians as the equivalent of 'be', is considered as an intrinsic locative state roughly equivalent to the English verb '(be) present' or 'exist'.

With respect to verbs of motion there seems to be a problem related to the assignment of the locative case. In the sentence 'He ran from the yard to the house', for instance, there are two locative nouns, namely, 'the yard' and 'the house'. The first locative noun specifies the starting point or source of the motion and the second locative noun specifies the terminal point or goal.

Fillmore (1971) assigns the Source role to the locative noun specifying the starting point and the Goal role to the locative noun specifying the terminal point. In effect, he conforms to John Anderson's localistic view (1971) in distinguishing between the locative noun accompanying a non-motional verb and that accompanying a motional one. There are, however, two defects of this analysis. First, the notion of complementarity of stative and motional (directional) location, which is also suggested by Fillmore (1971:41), is disregarded. Second, there seems to be a possibility of adding other locative nouns, resulting in assigning more cases. It is possible, for instance, to have a sentence like 'He ran from the house across the park past the tree to the tennis court'. Cook suggested (personal communication) that a Locative case could be assigned to capture the multiple locations as described above. Thus, the verb 'run', for instance, still has the case frame $+[-A^*, O, L]/A = O$.

Cook's suggestion appears to be of help. From the point of view of verb classification, which is particularly relevant to the present study, the suggestion contributes an advantage, since there is no need to increase the number of verb types, hence the simplicity of the analysis. Therefore, at least for the purpose of the present study, we adopt the suggestion.

1.4.7. Instrument

Chafe does not consider Instrument as a case dependent upon a particular selectional feature of the verb as other cases are. He assumes, instead, that an action process verb may optionally be accompanied by a noun which is related to it as instrument (1970b:152).

We agree with Chafe in his assumption cited above, but we modify the assumption to the effect that all action verbs (Chafe's action and action-process verbs) are taken into account. As in English, we also found that in BI an instrumental noun could be added optionally to any action verb. The optionality of the instrumental noun can be a reason to consider the Instrumental case as a modal case as proposed by Cook (1973a:57). This consideration is also supported by Lambert's suggestion (1969:124) that the Manner case and the Instrument sometimes overlap. A similar view is also suggested by Lakoff (1968), and, quoting Nilsen (1973:59), by Stockwell in the *US Air Force grammar*.

In brief, for the purpose of this study, we hold the view that the Instrumental case does not depend upon any verb selectional feature, thus, it is not a propositional, but a modal case, applying the Fillmorean terms (Fillmore 1970; Cook 1972b; 1973a).

1.4.8. Summary

In section 1.4. we have discussed some modifications of Chafe's verb types. We may note, however, that we did not include benefactive verbs in the discussion. The reason for this exclusion is that Chafe's proposal in this case is considered suitable for the present study, and so it is adopted. We may sum up, then, that there are three types of primary basic verbs, namely, state, process, and action. Each of these verbs may be further specified as experiential, benefactive, and locative, so that there are nine types of basic verbs in addition. These additional types may be regarded as secondary. In total, then, there are twelve basic verb types, as can be seen in Table 2.

Table 2: Modified basic verb types		
	Basic Verb Types	Required Cases
(1)	STATE	O _s ; O _s , O _s
(2)	State experiential	E, O _s
(3)	State benefactive	B, O _s
(4)	State locative	O _s , L
(5)	PROCESS	O; O, O
(6)	Process experiential	E, O
(7)	Process benefactive	B, O
(8)	Process locative	O, L
(9)	ACTION	A, O; A, O, O
(10)	Action experiential	A, E, O
(11)	Action benefactive	A, B, O
(12)	Action locative	A, O, L

Note that the order of the required cases in the second column is not in conformity with the order of the selectional features of the verb types as stated in the first column, because in the second column we place the cases in accordance with the case hierarchy as proposed by Fillmore (1971). The Cases in the second column are the following:

- A = Agent
- E = Experiencer
- B = Benefactive
- O = Object
- L = Locative

We follow Cook (1972b) in using the subscript 's' to indicate that the Object is the one required by a state verb. We also adopt Cook's proposal (1974b) that state, process, and action verbs may have double objects.

1.5. Derivation

1.5.1. Definitions of terms

Before we proceed with the discussion of derivation, we feel it necessary to define several terms related to the topic. We have been using the terms 'intrinsic' and 'basic', which we adopt from Chafe. Notionally, the two terms are the same, that is, they mean 'underived'. However, as we can see in the preceding discussions, we have made a distinction in their application. The term 'intrinsic' has been used with respect to features, in this case selectional features, and the term 'basic' has been used in connection with verb classification. The use of the latter term does not necessarily mean that it cannot be applied in discussing noun classification.

We will also adopt the term 'root', and on the basis of Chafe's statements (1970b:122-123, 139-140), it is defined semantically as a verb or noun type which is to be converted into another type through a derivational process. Two points should be noted in this definition: (1) the word 'another' includes not only the notion of difference in the selectional features, but also in the presence of the features, for instance 'count' versus '-count'; (2) since a derived type may be also converted into still another type, a root can be either basic or non-basic (derived). Having established the definition of root, we are now in a more convenient position to define the term 'derivation'. Taking into account Chafe's statements quoted above, derivation (the derivational process) can be defined as a semantic process of converting a root of a certain type into another type.

The terms 'root' and 'derivation' applied in this study, then, are semantic terms, and they are not to be confused with the terms used in traditional grammar, structural linguistics and transformational generative grammar.

1.5.2. Determination of basic forms

Since a root can be either basic or non-basic, one crucial question in a derivational process is the determination as to whether the root is basic or not. In English, which is Chafe's source of data, this determination is often difficult to make, because derivational processes are not regularly marked in the surface structure. In making a determination concerning such a problem, Chafe suggests relying primarily on introspection (intuitive judgement). He also suggests considering the frequency of occurrence of the items concerned, that is, the item which has the highest frequency may be regarded as the basic form.

With respect to derivations involving verb roots, Cook (1972b:37-39; 1974a:16-17) proposes two criteria, namely, morphological and syntactic. The morphological criterion applies to state verbs which take affixes when they are converted into nonstate verbs. This proposal says that the morphologically simpler form is the basic one. Thus, in English, for instance, 'wide' is the basic form, whereas 'widen' is a derived one.

In BI, to determine the basic root is not a crucial problem, at least not as crucial as in languages such as English, since derivational processes are in general regularly marked morphologically in the surface structure, and have regular syntactic implications. The state-process-action paradigm, for instance, is regularly observable in sentences such as the following:

- (16) Jalan itu lebar.
road the wide
The road is wide.
- (17) Jalan itu melebar.
The road widens.
- (18) Mereka melebarkan jalan itu.
they make-wide road the
They widened the road.

As we can see, the derivation in (17) is marked by the prefix *meN-* which is added to the verb *lebar*, and the derivation in (18) is marked by the affixes *meN-* and *-kan*. On the basis of such facts, we consider that the morphological and syntactic criteria as proposed by Cook are adequate as far as BI is concerned. We will therefore apply these criteria. Intuitive judgement will naturally be involved in making any decision.

1.5.3. Types of derivation

On the basis of the kinds of roots involved, there are three major types of derivation discussed by Chafe, namely, (1) verb-to-verb derivation, (2) noun-to-verb derivation, and (3) noun-to-noun derivation. A number of derivational features are viewed as a means of conversion in the derivational processes. The features involved in verb-to-verb derivations are inchoative, causative, resultative, deactivative, and deprocessive. In noun-to-verb derivations the features verbaliser and predicativiser are involved, and noun-to-noun derivations involve the features countiser, anthropomorphiser, femininiser, etc. Since the last type of derivation is not our concern in the present study, we will not discuss it any further.

There are five main verb-to-verb derivations proposed by Chafe (1970b:122, 124, 128, 131, 132). They may be outlined as follows:

- (1) an intrinsic state can be converted into a process by the addition of the derivational feature 'inchoative'.
- (2) an intrinsic process can be converted into a state by the addition of the derivational feature 'resultative'.
- (3) an intrinsic or a derived process can be converted into an action-process by the addition of the derivational feature 'causative'.
- (4) an intrinsic action-process can be converted into a process by the addition of the derivational feature 'deactivative'.
- (5) an intrinsic action-process can also be converted into an action by the addition of the derivational feature 'deprocessive'.

With respect to noun-to-verb derivations, Chafe proposes only two main types (1970b:142-143): (1) a noun can be converted into an action-process by the addition of the derivational feature 'verbaliser'; (2) a noun can be converted into a non-ambient state verb by the addition of the derivational feature 'predicativiser'.

We basically adopt Chafe's notion of semantic derivation as outlined here, but we propose the following modifications.

1.5.4. Modifications

The first modification that we would like to propose is related to Chafe's deprocessive derivation (1970b:132). We have decided (see 1.4.3.) to hold the view that the Object case is obligatory in the semantic structure of any action verb. Since the Object is obligatory, the deprocessive derivation is no longer possible as a semantic derivation. How, then, should the existence of sentences like 'Roger laughed' and 'Roger laughed a hearty laugh' in English be accounted for? We consider that the first sentence is the result of an object deletion rule at the postsemantic level. This consideration is also justified by data from BI as we presented in 1.4.3. Cook (1973a:70; and personal communication) also suggests a similar view.

The second modification is connected with noun-to-verb derivations. Chafe appears to be inconsistent with respect to these derivational processes. As we outlined in 1.5.3., he proposes that the derivational features 'verbaliser' or 'predicativiser' may be involved in a noun-to-verb derivation. Thus, the derivation is a semantic process. However, on other occasions (1970a:49-51; 1970b:280-281), he suggests that noun-to-verb derivations can be handled by means of incorporational processes. He defines an incorporation as a particular agreement in which a noun root, not a non-lexical unit, is moved into the verb from elsewhere in the sentence. This definition implies that an incorporation is a postsemantic process. In connection with this implication, too, Chafe is also indecisive in that he states that "It is the root of a postsemantic patient which is incorporated, not that of a semantic patient, though often the two will be the same". (Chafe 1970b:280.)

The first treatment proposed by Chafe above does not seem to conform to the notion of verb centrality. We consider, therefore, that the problems of noun-to-verb derivations can be better handled by means of incorporational processes.

The notion of incorporation is traceable in Gruber (1965) and later in case grammar by Lambert (1969), Fillmore (1970; 1971) and Cook (1973a; 1974). In Fillmore's modified case grammar (1970), which was developed by Cook (1973a), it is proposed that cases may be overt or covert. An overt case is one which is always present in the deep structure and realised in the surface structure. A covert case can be either partial or total. A partially covert case is one which is deletable, that is, not always realised in the surface structure, but present in the deep structure. A totally covert case is one which is present in the deep structure, but never realised in the surface structure. This absence from the surface structure is due to two factors: (1) the case is coreferential with another case, and (2) the case is lexicalised or built in the verb.

The lexicalised or built-in case is also called the incorporated case, and the process is called incorporation (Lambert 1969:48; Cook 1974:21). An incorporation is a postsemantic process. In the semantic structure of 'Roger skinned the goat', for instance, the verb is 'remove' as in 'Roger removed the skin from the goat's body'. Thus, 'skin' represents the Object. The object noun 'skin' is then postsemantically incorporated into the verb. The result of this process is that 'skin' appears as a verb having the same selectional features as 'remove'. Its noun selectional features become disfunctional or in terms of Chafe (1970b:284) evaporate. As Anderson (1971b:144) suggests, incorporations can also be regarded as mechanisms for lexical formations.

1.6. Inflection

The last major process of semantic formation proposed by Chafe is inflection. By inflection he means a semantic process of adding an inflectional feature to a verb or noun (Chafe 1970a:16; 1970b:168-169). Selectional features are made distinct from inflectional features in the following points (Chafe 1970b:167-168):

- (1) Selectional features (of verbs or nouns) determine the generation of lexical units, whereas inflectional features do not. The addition of an inflectional feature to a verb or a noun, however, brings some new notion.
- (2) Verb selectional features dictate the presence of nouns in the semantic structures, but the inflectional features do not.

The above two points entail the fact that an inflectional feature is never intrinsic, but it is added later after lexical units are generated by semantic rules in which the selectional features are determinative.

The inflectional processes proposed by Chafe capture various communicative aspects, including what are generally known as tense, aspect, mood, and passivity, which are related to the structure of a verb in a sentence, or to the structure of the sentence as a whole. With respect to nouns, the notion of definiteness, number, etc., are included.

The various notions involved in the inflectional processes lead us to an assumption that such processes are universal, though the notions in terms of type, quantity, and surface representation, may be different from language to language due to cultural specificity. Data from BI also justify this assumption, as exemplified by the following sentences:

- (19) Harimau makan daging.
tiger eat meat
A tiger eats meat.
- (20) Kopi ini kemanisan.
coffee this excessively-sweet
This coffee is excessively sweet.

The verb makan in (19) is not restricted to a particular time or situation, but rather it refers to the general behaviour of tigers. The noun harimau, too, does not refer to a specific 'tiger', but to all tigers in the animal world. The inflectional feature 'generic', then, has been added to the verb and the noun. The feature is not marked in the surface structure as it is in English. In English it is marked by the indefinite article 'a'. The verb kemanisan (20) conveys the notion of 'excessively'. The basic verb is manis *sweet*. In order to account for the additional notion, we may postulate, for instance, the existence of an inflectional feature 'excessive'. The feature is added to the basic verb, and the addition is marked in the surface structure by the affixes ke-an. On the other hand, in English the addition of the notion is marked by the adverb 'excessively' or 'too'.

On the basis of the assumption we briefly discussed above, we adopt Chafe's notion of inflection as defined in the beginning of this section.

1.7. Statements of constraint, rules, notational conventions

Chomsky (1965:4) defines competence as the speaker-hearer's knowledge of his language. This definition essentially implies that the speaker-hearer has an ability to distinguish grammatical from ungrammatical sentences of his language.

Since the grammar of a language is an attempt to describe the speaker-hearer's competence (Chomsky 1965:8), it must consist of a system of rules capable of generating only the grammatical sentences of the language. Rules of grammar, therefore, may also be regarded as statements of constraint on the occurrences of ungrammaticalities. This interpretation of rules is held in the present work.

It seems to be a universal fact in living languages, however, that there are certain cases which cannot be controlled by generalised rules. These cases are generally considered as exceptions to the rule. The existence of exceptional cases in essence indicates a deficiency in the generative power of the rules. To account for possible exceptions, we consider Rose's suggestion (1973:519) concerning actual and potential productivity in derivational processes to be of appropriate help. In English, for instance, one can say 'She watered the flowers' meaning 'She put (sprayed) water on the flowers'. The verb 'water' is derived from the noun 'water'. This derivation can be regarded as a rule, since it captures extensive occurrences. However, as Rose suggested (1973:616), the expression 'Yard the house-plants' still sounded uncommon or strange to native speakers of English, though the meaning was understood, because the above rule of derivation was not violated. The derived verb 'yard', on the other hand, may be considered as an example of the potential productivity of the rule.⁷ In other words, the latter exceptional case bears a considerable probability of becoming actual.

Examples such as the above are assumed to exist in BI. Therefore, we adopt Rose's suggestion, and postulate that derivational, incorporational, as well as inflectional rules have actual and potential productivity. This postulation conforms to the notion of creativity of language as advanced by Chomsky. Our statements of constraint in the present study, then, will be in the form of general rules supplemented by statements of actual and potential productivity.

On the basis of what we discussed in sections 1.5. and 1.6., there are three major types of rule required in the present study, namely, (1) a derivational rule, (2) an incorporational rule, and (3) an inflectional rule. We will basically conform to Chafe's system, but will make a modification to the effect that the affixations which are triggered by the processes in the surface structures are indicated. Note that by surface structure we mean the phonological structure. The three types of rule, then, will be in the following forms:

(1) Derivational rule:

Vx	\longrightarrow	Vy
root		root + [z]
verb base pref + verb base + suf		

This rule states that a verb may be optionally converted into another verb of different selectional feature by adding a derivational feature to the verb root. The process triggers a certain affixation in the surface structure.

(2) Incorporational rule:

Vx	<div style="border-top: 1px solid black; width: 100px; margin: 0 auto;"></div>	C	\longrightarrow	Vx
		N		
		norm base pref + noun base + suf		

This rule states that a noun representing a certain case role may be incorporationally converted into a verb at the postsemantic level. The new verb has the same selectional feature or features as the original verb in the semantic structure. This rule is also optional and it also triggers a certain affixation in the surface structure.

(3) Inflectional rule:

$$Vx \text{ --- } \longrightarrow Vx$$

$$\qquad \qquad \qquad <y>$$

pref + verb base + suf

This rule states that an inflectional feature may be optionally added to a verb. The process triggers a certain affixation in the surface structure.

In the above rules the following conventional notations are used:

C	=	case role
N	=	noun
V	=	verb
x	=	intrinsic selectional feature
y	=	derived selectional feature
[z]	=	derivational feature
<y>	=	inflectional feature
[]	=	brackets for derivational features; in the following chapters they will also be used for selectional features outside the rules
< >	=	brackets for inflectional features
— →	=	optionally converted into
== ⇒	=	optionally incorporated into
— →→	=	optionally inflected
┌ ┐	=	indicating the semantic structure of the verb, in which the incorporated noun is found
-----	=	indicating the separation between semantic or postsemantic structure and surface structure (phonological structure)
base	=	a surface structure term for a verb or noun to which an affix is attached
pref	=	prefix
suf	=	suffix

In addition to the above conventional notations we will follow Lambert's lead (1969) in marking case roles in the surface structure, as in the following example:

- (21) Mereka pergi ke Jakarta.
 A = O V L
 they go to Jakarta
 They went to Jakarta.

Note also that we will provide two translations, namely a word-by-word translation and a free overall translation. Where necessary other conventional notations than the above will also be used, and will be explained in the analysis.

1.8. Summary

In this chapter we have discussed an eclectic theoretical framework which is basically an incorporation of Chafe's semantic model, Fillmore's case grammar, and Cook's case grammar matrix. The framework can be summarised as follows:

- (1) Semantics is central to language analysis, and in the semantic structure of language the verb dictates the presence of the noun.
- (2) There are twelve basic verb types, each of which requires a certain case or a number of cases in its semantic structure.
- (3) A basic verb type can be converted into another type through a derivation in which a derivational feature is added to the verb root. This semantic derivation triggers a surface structure representation which is different from language to language in some way or other.
- (4) A noun representing a certain case role in the semantic structure of a verb may be converted into a verb of the same type as the verb in the semantic structure through a postsemantic incorporation. This incorporation may be considered as a mechanism for lexical formation, and it may trigger a surface structure representation which is different from language to language in some way or other.
- (5) A verb may be semantically inflected by the addition of a semantic feature which brings a new meaning to the verb. This process does not change the type of the verb. The inflectional process also triggers a surface structure representation which is different from language to language in some way or other.

In addition, we also incorporate into the framework the notions of overt and covert case roles as well as the notions of actual and potential productivity of a rule. Lakoff's progressive and command imperative tests (1966), which are adapted to BI, are also used as aids in identifying stative and non-stative verbs.

In our discussions in this chapter we have presented some arguments supporting the above framework. Further justifications will be obvious throughout its application in the following chapters.

CHAPTER II

BASIC VERB TYPES OF BI

2.0. PRELIMINARY REMARKS

In the present chapter we propose a semantic classification of basic verb types of BI applying the framework we discussed in Chapter I (see 1.4.8.). We may note again that the term 'basic' in this study is used in opposition to 'derived'. The use of the term is not restricted to intrinsic state, process, and action verbs as in the case grammar matrix proposed by Cook (1972b; 1973a; 1974b), but it has been extended to intrinsic experiential, benefactive, and locative verbs.

The main purpose of this classification is to establish a foundation for the identification and specification of the selectional features of the basic verbs, which is crucial to the discussion of the processes which trigger the affixations as we stated in the Introduction. The verb classification therefore will mainly consist of defining and exemplifying each of the basic verb types.

2.1. State verbs

A state verb has the intrinsic selectional feature [state]. The verb requires an Object in its semantic structure. The Object noun specifies the entity which is in a certain state or condition.

The following sentences contain state verbs:

- (22) Dinding rumah itu putih.
 $\begin{matrix} & O_s & & V \\ wall & house & the & white \\ The\ wall\ of\ the\ house\ is & white. \end{matrix}$
- (23) Kebun Pak⁸ Salim luas.
 $\begin{matrix} & O_s & & V \\ farm & father\ Salim & extensive \\ Mr\ Salim's\ farm\ is & extensive. \end{matrix}$
- (24) Si⁹ Tuti cantik.
 $\begin{matrix} & O_s & & V \\ Tuti & pretty \\ Tuti\ is & pretty. \end{matrix}$

- (25) Bu¹⁰ Tahir ramah.
 Os V
 Mother Tahir friendly
 Mrs Tahir is friendly.

The verbs putih, luas, cantik, and ramah are basic states.

In terms of the traditional grammar, they are all adjectives. As in English, in BI, too, state verbs generally designate fixed physical qualities such as colour, size, and bodily appearance.

2.2. State experiential verbs

A state experiential verb has the intrinsic selectional features [state experiential]. The verb requires an Experiencer and an Object in its semantic structure. The Experiencer noun specifies the one who is in the psychological state of cognition, emotion, or sensation. The Object noun specifies the content of or stimulus for the experience.

State experiential verbs are exemplified in the following sentences:

- (26) Pak Burhan tahu ceritera itu.
 E V Os
 father Burhan know story the
 Mr Burhan knows the story.

- (27) Saya suka (akan) rambutan.
 E V Os
 I like (of) rambutan
 I like rambutan.

- (28) Tuti ingin mobil baru.
 E V Os
 Tuti want car new
 Tuti wants a new car.

- (29) Anak itu takut.
 E V
 kid the afraid
 The kid was afraid.

The verbs tahu, suka, ingin, and takut are state experiential verbs. The first verb refers to cognition and the last three verbs refer to emotions. The nouns representing the Objects of the state experiential verbs in BI are generally preceded by the preposition *akan of, at, about*. This preposition is deletable as can be seen in the above sentences. The verbs in (26)-(28) are even more common without the preposition. Furthermore, these verbs are different from that in (29) in that the Objects are not deletable, whereas in the latter the Object is deletable. It seems that there are more verbs of the latter type in BI than of the former. Other examples of the latter type are *sedih sad, marah angry* (in a state of), *gembira glad*, and *kesal annoyed or disappointed*.

There are also a number of state experiential verbs with deletable Experiencers, as exemplified in (30):

- (30) Soal itu sukar (bagi saya).
 Os V E
 problem the difficult for I
 The problem was difficult (for me).

Other examples are *mudah easy*, *gampang easy*, *baik good*, *penting necessary*, *important*, and *enak pleasant, delicious*. Note that the nouns representing the Experiencers of these verbs, are always preceded by the preposition *bagi for*, and that there is a psychological movement with such verbs owing to which the Objects should be selected as surface subjects by means of a flip rule, that is, the normal order of the cases is reversed.

2.3. State benefactive verbs

A state benefactive verb has the intrinsic selectional features [state benefactive]. The verb requires a Benefactive and an Object in its semantic structure. The Benefactive noun specifies the one who possesses the object or thing, and the Object noun specifies the object or thing possessed.

State benefactive verbs are exemplified in the following sentences:

- (31) Toni punya mobil
 B V O_S
Toni possess (have) car
Toni possesses (has) a car.

- (32) Sondang ada uang.
 B V O_S
Sondang exist money
Sondang has money.

The verbs *punya* and *ada* are the only basic state benefactive verbs in BI. Note that besides sentence (32), sentence (33) is also common:

- (33) Uang ada pada Sondang.
 O_S V B
money exist in Sondang
Money is in the possession of Sondang.
(Money is kept by Sondang.)

While it is possible to consider sentence (33) as a result of a flip, the meaning it conveys is not always the same as the meaning conveyed by sentence (32). As can be seen from the English translations, sentence (33) is ambiguous. The second meaning of the sentence, as indicated by the translation between parentheses, is that the money is only kept by Sondang; she does not necessarily possess it. We may finally note that the state benefactive *ada* as in (33) seems to fit the localistic interpretation as proposed by John Anderson (1971b:107, 117).

2.4. State locative verbs

A state locative verb has the intrinsic selectional features [state locative]. The verb requires an Object and a Locative in its semantic structure. The Object noun specifies the entity which is in a certain place or location, and the Locative noun specifies the place or location.

State locative verbs are exemplified in the following sentences:

- (34) Ibu ada di dapur.
 O_s V L
 mother exist in kitchen
 Mother is in the kitchen.
- (35) Laki-laki itu diam di gubuk ini.
 O_s V L
 man the live in hut this
 The man lives in this hut.
- (36) Dia hadir dalam rapat itu.
 O_s V L
 he present in meeting the
 He was present in the meeting.

The verbs *ada*, *diam*, and *hadir* are state locative verbs. Note that *ada* is also a state benefactive. This verb, then, has two entries. It may be argued that the verb *ada* in (34) is semantically empty and equivalent to the English copula 'be', since sentence (37) is also common:

- (37) Ibu di dapur.
 O_s L
 mother in kitchen
 Mother is in the kitchen.

It may further be argued that the verb in the above sentence is the preposition *di* as proposed by Chafe (1970b:159) in English. Our position is different from this proposal as we indicated in Chapter I (See 1.4.6.). We assume that the absence of *ada* in (37) is due to a deletion. The notion of *ada* is still intuitively perceived in such a sentence. From the point of view of speech behaviour, such a deletion is due to the speaker's tendency to shorten expressions for efficiency, particularly in a fast and intimate conversation such as (38):

- (38) a *Kemana ibu?*
 where mother
- b *Ibu ke pajak*
 mother to market

Example (38)a is a simple question, and (38)b is an answer. In a careful conversation the sentences are as follows:

- (39) *Kemana ibu pergi?*
 where mother go
 Where did mother go?
- (40) *Ibu pergi ke pajak.*
 Mother went to the market.

The verbs *diam* and *hadir* do not raise any problem except that *diam* has another meaning, namely, 'be silent' or 'not move'. This meaning, however, is not taken into account here. Like the verb *ada*, this verb has also two entries. Other examples of state locative verbs are *tinggal* *stay* and *hidup* *live*. The verb *tinggal*, too, has two entries, that is, besides the locative sense it can also be an action.

2.5. Process verbs

A process verb has the intrinsic selectional feature [process]. The verb generally requires an Object in its semantic structure. The Object noun specifies the entity which undergoes a process of change of state or condition.

Process verbs are exemplified in the following sentences:

- (41) Bibit karet itu sedang tumbuh.
 O V
seedling rubber the going-on grow
The rubber seedlings are growing.

- (42) Tanaman muda itu sedang layu.
 O V
 plant young the going-on wither
 The young plants are withering.

The verbs tumbuh, layu, and gugur are processes. They can take the temporal modal sedang, adapting Lakoff's progressive test (1966). Furthermore, adapting Chafe's 'rule of thumb' (1970b:100), the above sentences can be the answers to the question Apa yang terjadi kepada N? *What happened to N?* (N being the object).

In addition to process verbs such as the above, there appears to be a basic process in BI which requires two Objects in its semantic structure, namely, *jadi* which is equivalent to the English verb 'become' or 'turn into', as can be seen in sentence (43) below:

- (43) Tanah itu jadi lumpur.
 O V O
 ground the become mud
 The ground became mud.

In order to account for this fact, we may modify the definition of the basic process verb presented above to the effect that two Objects are possible in the semantic structure. We shall see more about double Objects in our discussion of action verbs.

Other examples of basic process verbs are hancur *shatter*, retak *crack*, luluh *melt*, runtuh *collapse*, and longsor *slide off*.

2.6. Process experiential verbs

A process experiential verb has the intrinsic selectional features [process, experiential]. In its semantic structure, the verb has an Experiencer and an Object. The Experiencer noun specifies the one who undergoes a psychological change with respect to the content of or the stimulus for the experience as specified by the Object noun.

The following sentences contain process experiential verbs:

- (44) Gadis itu bimbang akan kata-kata kekasihnya.
 E V O
girl the doubt about word fiancé her
The girl is in doubt about her fiancé's words.

- (45) Orang kaya itu cemas akan ancaman itu.
 E V O
person rich the apprehensive of threat the
The rich man was apprehensive of the threat.
- (46) Kami waswas atas keterlambatan Toni.
 E V O
we anxious about lateness Toni
We were anxious about Toni's being late.
- (47) Toni dengar suara itu.
 E V O
Toni hear voice the
Toni heard the voice.

The verbs *bimbang*, *cemas*, *waswas*, and *dengar*, are process experiential verbs. As processes, the verbs can take the temporal modal *sedang*, but cannot be used to construct command imperatives. Sentence (48)a, for instance, is acceptable, but (48)b is not:

- (48) a Gadis itu sedang bimbang akan kata-kata kekasihnya.
 E V O
The girl is in doubt about her fiancé's words.

*b Bimbang!

The above sentences, furthermore, can be the answers to the question *Apa yang terjadi kepada N?* (N being the Experiencer).

We should note that the Object nouns in (44)-(46) are generally preceded by the preposition *akan* *about*, *at*, *of*, or *atas* *on*, *at*, *about*, or sometimes *pada* *at*, *on*, but the Object noun in (47) is never preceded by a preposition. Other process verbs the Object nouns of which do not take a preposition are *lihat* *see*, *rasa* *feel*, and *cium* *smell*.

The verbs in (44)-(46) have deletable Objects, but the Objects of the verbs *dengar*, *lihat*, *rasa*, and *cium* are totally overt. As we can see, the verbs in (44)-(46) refer to emotion, and the other verbs refer to sensation. Examples of process experiential verbs that refer to cognition are *ingat* *recall* and *pikir* *think of*. The Object nouns of these verbs are preceded by the preposition *akan*, and the Objects are totally overt like the Object of the verbs of sensation.

2.7. Process benefactive verbs

A process benefactive verb has the intrinsic selectional features [process, benefactive]. The verb requires a Benefactive and an Object in its semantic structure. The Benefactive noun specifies the one who undergoes a process of gaining or losing, and the Object noun specifies the entity which is gained or lost.

Process benefactive verbs are exemplified in the following sentences:

- (49) Pak Burhan menang lima ribu rupiah.
 B V O
father Burhan win five thousand rupiah
Mr Burhan won five thousand rupiahs.
- (50) Mereka kalah lima juta rupiah.
 B V O
they lose five million rupiah
They lost five million rupiahs.

- (51) Tuti dapat hadiah berharga.

B V O
Tuti get prize valuable
Tuti got a valuable prize.

The verbs menang, kalah, and dapat are process benefactive verbs. They can take the temporal modal sedang, but cannot be used to construct command imperatives. Thus, sentence (52)a, for instance, is acceptable, but (52)b is not:

- (52) a Pak Burhan sedang menang lima ribu rupiah.

B V O
Mr Burhan is winning five thousand rupiah.

*b Menang!

Sentences (49)-(51) can be answers to the question Apa yang terjadi pada N? (N being the benefactor).

In (49) and (51) the Benefactive nouns specify the ones who undergo the processes of gaining the entities specified by the Objects, while the Benefactive noun in (50) specifies the one who undergoes the process of losing the entity specified by the Object.

Other examples of process benefactive verbs are hilang *lost or missing* and jumpa *find*.

2.8. Process locative verbs

A process locative verb has the intrinsic selectional features [_{process} locative]. The verb requires an Object and a Locative in its semantic structure. The Object noun specifies the entity which undergoes a change of location or place, and the Locative nouns specifies the location or place.

Process locative verbs are exemplified in the following sentences:

- (53) Sampan itu timbul ke permukaan air.

O V L
boat the emerge to surface water
The boat emerged to the surface of the water.

- (54) Matahari sedang terbit dari ufuk Timur.

O V
sun going-on rise from horizon east
The sun is rising from the eastern horizon.

- (55) Kapal itu tenggelam ke dasar laut.

O V L
ship the sink to bottom sea
The ship sank to the bottom of the sea.

- (56) Surat itu datang dari Jakarta.

O V L
letter the come from Jakarta
The letter came from Jakarta.

The verbs timbul, terbit, tenggelam, and datang are processes. They can take the temporal modal sedang, as in sentence (54), but cannot be used to construct command imperatives. Sentence (57), for instance, is unacceptable:

- (57) Terbit!

Furthermore, sentences (53)-(56) can be the answers to the question *Apa yang terjadi kepada N?* (N being the entity specified by the Object noun).

It should be noted that the verb *datang* (56) has the Object noun specifying an inanimate entity. The verb may also be an action and in this case it requires an Agent. This verb, then, has two entries. Other verbs of this type are *pindah move*, *naik ascend, go up, rise*, *turun descend, go down*, and *tiba arrive*.

As can be seen in the above sentences, process locative verbs are generally verbs of motion. They imply that the entities specified by the Object nouns move in some way or other from one place to another. Sentence (53), for instance, conveys the notion that the boat emerged from the bottom to the surface of the water. Sentence (54) conveys the meaning that the sun rises from the eastern horizon in the direction of the western horizon. As we discussed in Chapter I, section 1.4.6., there may be multiple locations implied by verbs of motion. This possibility is also found in BI as can be seen above. For this reason and for the other reasons which we already discussed in the chapter mentioned above, we decided that only one case, that is, Locative, was needed to capture the possibility.

Other examples of process locative verbs are *jatuh fall*, *hanyut float away*, and *sampai arrive*.

2.9. Action verbs

An action verb has the intrinsic selectional features [action process]. The verb generally requires an Agent and an Object in its semantic structure. The Agent noun specifies the instigator of the action and the Object noun specifies the entity effected or affected by the action.

Action verbs are exemplified in the following sentence:

- (58) Pak Salim sedang minum kopi susu.
 A V O
 father Salim going-on drink coffee milk
 Mr Salim is drinking coffee with milk.
- (59) Ular itu telan seekor¹¹ bebek.
 A V O
 snake the swallow a-tail duck
 The snake swallowed a duck.
- (60) Polisi tangkap seorang¹² perampok.
 A V O
 police catch a-person robber
 The police caught a robber.
- (61) Murid-murid sedang main bola.
 A V O
 pupils going-on play ball
 The pupils are playing soccer.
- (62) Mereka sedang makan.
 A V
 they going-on eat
 They were having dinner.

The verbs *minum*, *telan*, *tangkap*, *main*, and *makan* are action verbs. These verbs can take the temporal modal *sedang*, as in (58), (61), and (62), and can be used to construct imperative sentences, as in (63):

- (63) *Minum kopi itu!*
 V O
 Drink the coffee!

Some action verbs have deletable Objects. The verb *makan* in (62) is an example. The Objects, however, are obligatorily present in the semantic structure, as we already discussed in Chapter I, section 1.4.3. The verbs *minum* (58) and *main* (61) also have deletable Objects. In addition to action verbs such as the above, in BI there appears to be a very limited number of action verbs which require two Objects, as exemplified in sentence (64):

- (64) *Kami pilih Simson ketua.*
 A V O O
 we elect Simson chairman
 We elected Simson chairman.

In order to account for facts such as this, the definition of an action verb presented in the beginning of this section has to be modified to the effect that double Objects are possible. The possibility of double Objects is also suggested by John Anderson (1971:75-77) with respect to the English verbs 'become', 'elect', 'make', 'appoint', etc. Cook (1974b; and personal communication) also makes a similar suggestion.

Other examples of verbs that require double Objects are *hunjuk appoint* and *angkat appoint*. Other examples of action verbs are *buat make*, *bangun build*, *construct*, *bunuh kill*, *potong cut*, *angkat lift*, *pukul beat*, *strike*, and *lempar throw (at)*.

2.10. Action experiential verbs

An action experiential verb has the intrinsic selectional features

[action
 process
 experiential].

The verb requires an Agent, an Experiencer and an Object in its semantic structure. The Agent noun specifies the instigator of the action, the Experiencer noun specifies the one who undergoes the experience, and the Object noun specifies the stimulus for or content of the experience.

- (65) *Pak Direktur bilang 'tidak' kepada sekretarisnya.*
 A V O E
 father Director say no to secretary-his
 The Director said 'no' to his secretary.
- (66) *Pak Burhan taksir harga mobil bekas itu.*
 A = E V O
 father Burhan estimate price car-used the
 Mr Burhan estimated the price of the used car.
- (67) *Polisi tanya tentang kejadian itu kepada kami.*
 A V O E
 police ask about accident the to we
 The police asked us about the accident.

- (68) Tuti sebut nama pemuda itu kepada kami.

A O E
Tuti mention name young-man the to us
Tuti mentioned the young man's name to us.

The verbs bilang, taksir, tanya, and sebut are action experiential verbs. As action verbs, they can take the temporal modal sedang and can be used in command imperatives.

Many of the action experiential verbs are verbs of saying as in (65), (67), and (68). Other examples are jawab *answer* and sahut *reply*. The Experiencers of the verbs of saying are deletable, if they are not coreferential with the agents, as exemplified by (69) and (70):

- (69) Tuti sebut nama pemuda itu.

A V O
Tuti mentioned the name of the young man.

- (70) Dia jawab pertanyaan itu.

A=E V O
he answer question the
He answered the question.

In (69) the Experiencer has been deleted, but in (70) it cannot be deleted, because it is coreferential with the Agent.

The verb taksir (66) refers to cognition. The Experiencers of verbs of this type are covert, since they are coreferential with the Agents. Other examples of these verbs are hitung *calculate or count* and kira *count*.

2.11. Action benefactive verbs

An action benefactive verb has the intrinsic selectional features

[action
 process
 benefactive].

The verb requires an Agent, a Benefactive, and an Object in its semantic structure. The Agent noun specifies the instigator of the action which results in a gain or loss, the Benefactive noun specifies the one who undergoes the gain or loss, and the Object noun specifies the entity which undergoes a process of transfer.

Action benefactive verbs are exemplified in the following sentences:

- (71) Toni beli mobil dari Pak Burhan.

A V O B
Toni buy car from father Burhan
Toni bought a car from Mr Burhan.

- (72) Pak Salim jual sawahnya kepada Pak Ali.

A O B
father Salim sell rice-field-his to father Ali
Mr Salim sold his rice field to Mr Ali.

- (73) Ibu beri uang kepada adik.

A V O B
mother give money to younger brother
Mother gave money to (my) younger brother.

- (74) Tuti terima hadiah dari pamannya.
 A V O B
 Tuti receive present from uncle-her
 Tuti received a present from her uncle.

The verbs *beli*, *jual*, and *terima* are action benefactive verbs. As action verbs, they can take the temporal modal *sedang*, and can be used in command imperatives.

The Benefactive nouns in (71) and (74) specify the ones who undergo losses, and those in (72) and (73) specify the ones who undergo gains. The assignment of the Benefactive case to these nouns is based on the fact that they do not specify the instigators of the actions. Thus, in sentence (71), for instance, the instigator of the action is specified by the noun *Toni*; therefore, though this noun specifies the one who gains, it is not considered as representing the Benefactive.

It should also be noted that the Benefactives are deletable, as evident from the fact that sentence (75), for instance, is also acceptable:

- (75) Toni beli mobil.
 A V O
 Toni bought a car.

Other action benefactive verbs are *kasih* *give*, *kirim* *send*, and *pinjam* *borrow*.

2.12. Action locative verbs

An action locative verb has the intrinsic selectional features

[action
process
locative].

The verb requires an Agent, an Object, and a Locative in its semantic structure. The Agent noun specifies the instigator of the action, the Object noun specifies the entity which undergoes a change of location, and the Locative noun specifies the location.

Action locative verbs are exemplified in the following sentences:

- (76) Ayah sudah pergi ke kantor.
 A=O V L
 father already go to office
 Father has gone to the office.
- (77) Bapak Presiden baru tiba dari Amerika Serikat.
 A = O V L
 father president just arrive from America United
 (His Excellency) the President has just arrived from the United States.
- (78) Toni taruh tasnya ke atas meja.
 A V O L
 Toni put bag-his on table
 Toni put his bag on the table.
- (79) Sondang ambil teh dari dapur.
 A V O L
 Sondang take tea from kitchen
 Sondang takes (a glass of) tea from the kitchen.

The verbs *pergi*, *tiba*, *taruh*, and *ambil* are action locative verbs. As action verbs, they can take the temporal modal *sedang*, and can be used in command imperatives.

In (76) and (77) the Agents and Objects are coreferential. Other action locative verbs of this type are *naik go up, ascend*, *turun descend*, *datang come*, *lari run*, *terbang fly*, *duduk sit* (assume a sitting position), *lompat jump*, and *tinggal stay* (cause oneself to stay). Note that most of these verbs have two entries, that is, they are processes, if there are no Agents involved, and the Object nouns specify inanimate entities (see section 2.8.).

In (78) and (79), the Agents are not coreferential with the Objects. Other examples of verbs of this type are *bawa bring*, *tolak push*, *geser shift, move*, *mundur move backwards*, and *maju move forwards*.

As can be seen from the examples presented above, the greater number of action locative verbs in BI are verbs of motion. Similar to the process locative verbs we discussed in section 2.8., these verbs also imply that the entities specified by the Object nouns move from one location to the other. Therefore, the Locative in the semantic structure of an action locative verb is also interpretable in the same manner as the Locative in the semantic structure of a process locative verb. That is to say, the Locative case of the action locative verb may also capture the notion of multiple locations.

2.13. Summary

We have defined and illustrated twelve basic verb types of BI in this chapter. While realising that there may be certain problems left unsolved, we believe that the classification is sufficient at least for the purpose of the present study. Its usefulness will be evident in the following chapters. The verb types are summarised in Table 3.

Table 3: Basic verb types of BI		
	Basic Verb Types	Required Cases
(1)	STATE	O _S
(2)	State experiential	E, O _S
(3)	State benefactive	B, O _S
(4)	State locative	O _S , L
(5)	PROCESS	O; O, O
(6)	Process experiential	E, O
(7)	Process benefactive	B, O
(8)	Process locative	O, L
(9)	ACTION	A, O; A, O, O
(10)	Action experiential	A, E, O
(11)	Action benefactive	A, B, O
(12)	Action locative	A, O, L

Note that in the above table, there is no basic state verb that requires double objects. We did not find any data which points to the occurrence of such a basic state in BI. Thus, the basic verb types of BI given here are different from the verb types we discussed in Chapter I (See Table 2) in this particular case.

CHAPTER III

DERIVATIONS

3.0. PRELIMINARY REMARKS

This chapter deals with verb-to-verb derivations. In analysing the derivations, the framework we discussed in section 1.5., Chapter I, and the basic verb types of BI proposed in Chapter II will be applied. The kinds of derivational processes, the derivational features as well as other features involved in them, the constraints on their occurrences, their syntactic correlates, and the affixations they trigger in the surface structure will be the focal points of the discussions. Each of the main sections of this chapter will be titled in accordance with the kind of derivation in question.

3.1. Inchoative derivations

An inchoative derivation is a derivational process in which the derivational feature [inchoative] is added to a basic state root in order to derive a process verb.

In English, as indicated by Chafe (1970b:122-123), this derivational process does not trigger, at least not regularly, an affixation in the surface structure. In the present section we will show that in BI the process regularly triggers an affixation, and that the constraint on its occurrence is signalled by the constraint on the occurrence of the affixation in the surface structure.

The following sentences are examples from our data:

- (80) Padi itu sedang menguning.
O V
rice the going-on becoming yellow
The rice-plants are becoming yellow.
- (81) Minyak goreng itu telah mengental.
O V
oil fry the already congeal
The frying oil is already congealing.
- (82) Keadaan politik negara itu sedang memburuk.
O V
situation politics country the going-on become-bad
The country's political situation is becoming bad.

The verbs in the above sentences are *menguning*, *mengental*, and *memburuk*. Each of these verbs indicates that the object is undergoing a change, and that the process of change is not yet in the final stage. Though in (81), for instance, there is a temporal modal *telah already*, which is usually expressed in the perfect tense in English, it does not mean that the object is already in the state of 'being congealed', but this modal conveys a notion that the object is already in the process. In short, the three verbs designate processes of change. Therefore, we may conclude that they are semantically identifiable as process verbs.

The above conclusion is further justified by the fact that the verbs can take the temporal modal *sedang*, but cannot be used in command imperative sentences. The use of the temporal modal *sedang* can be seen in (80) and (82), and the verb *mengental* (81) can also take it. That they cannot be used in command imperative sentences is obvious from the fact that sentences such as the following are unacceptable:

- * (83) *Menguning!*
become yellow
- * (84) *Mengental!*
become congealed
- * (85) *Memburuk!*
become bad

In literary language, we may find a sentence like (86):

- (86) *Menguninglah engkau padiku!*
become-yellow-please you rice-my
Please become yellow, you my rice!

In such a sentence, however, *padi rice* is personified and addressed as *engkau you*. The verb, consequently, may be considered as designating an action, which may be interpreted as a result of feature projection of the personified 'padi'. This is one of the creative language processes according to Lambert (1969), which is beyond the scope of this study.

Applying the morphological criterion, it is obvious that the three verbs in (80) to (82) are not basic, since the prefix *meN-* is observable in each of them. The bases to which the prefix is attached are respectively *kuning yellow*, *kental thick or congealed*, and *buruk bad*. Like their English equivalents, these basic verbs are all states. Since the basic verbs are states and the derived verbs are processes, it is evident that inchoative derivations have occurred. These derivational processes have triggered the affixations of *meN-* to the verb bases, because there is no other process that can possibly be assumed to have triggered it. Since in an inchoative derivation the derivational feature [inchoative] is added to the basic verb root, we may further conclude that the prefix *meN-* is the surface marker of the derivational feature and it also marks that the verb is a process. Viewing it from the surface structure, we may also say that the affixations of *meN-* to the verb bases mark the occurrences of inchoative derivation.

Recalling the basic verb types we proposed in Chapter II, there are four types of state verbs, namely, state, state experiential, state benefactive and state locative. The basic verbs involved in (80) to (82) are states. Can the inchoative derivation also occur with the other types? In order to find the answer to this question, let us observe the following data:

- * (87) *Mereka menahu (akan) peristiwa itu.*
they know (about) affair the

- * (88) Tuti mempunyai mobil baru.
 Tuti have car new
- * (89) Bapa mengada di kamar.
 father present in room

As we can see from the mark *, sentences (87) to (89) are unacceptable. The basic verbs are respectively tahu, punya, and ada. They are respectively state experiential, state benefactive, and state locative. The derived verbs menahu, mempunyai, and mengada are anomalous. Above we concluded that the affixation of meN- marks the occurrence of an inchoative derivation. Since the affixations of meN- to the verbs result in anomalies, we may conclude that the inchoative derivation cannot occur to the basic verbs in question. In other words, the constraint on the affixations of meN- to the verb bases is the signal of the semantic constraint on the occurrences of the inchoative derivation.

Since the inchoative derivation can occur only in basic state verbs, its occurrence in basic process verbs is proscribed. The proscription, of course, applies also to all types of action verbs. However, our investigation reveals that the affixations of meN- occur also in verb bases which are semantically actions. What semantic process, then, triggers these affixations? Let us first observe the following data:

- (90) Mereka memakan ayam goreng.
 A V O
 they eat chicken fry
 They ate fried chicken.
- (91) Saudagar itu menghitung keuntungannya.
 A - E V O
 merchant the calculate profit - his
 The merchant calculated his profit.
- (92) Pak Bakri menjual sawahnya kepada kami
 A V O B
 father Bakri sell rice-field-his to we
 Mr Bakri sold his rice-field to us.
- (93) Ibu mengambil segelas teh dari dapur.
 A V O L
 mother take one-glass tea from kitchen
 Mother took a glass of tea from the kitchen.

The verbs memakan, menghitung, menjual, and mengambil are respectively action, action experiential, action benefactive, and action locative. The basic verbs are makan, hitung, jual and ambil to which the prefix meN- has obviously been affixed. Besides the above sentences, however, the following sentences, in which the verbs are not affixed with meN-, are also acceptable:

- (94) a Mereka makan ayam goreng.
 A V O
 They ate fried chicken.
- b Makan ayam goreng itu!
 V O
 Eat the fried chicken!
- (95) a Saudagar itu hitung keuntungannya.
 A - E V O
 The merchant calculated his profit.

- b Hitung keuntunganmu!
 V O
 Calculate your profit!
- (96) a Pak Bakri jual sawahnya kepada kami.
 A V O B
 Mr Bakri sold his rice-field to us.
- b Jual sawahmu kepada kami!
 V O B
 Sell your rice-field to us!
- (97) a Ibu ambil segelas teh dari dapur.
 A V O L
 Mother took a glass of tea from the kitchen.
- b Ambil segelas teh dari dapur!
 V O L
 Take a glass of tea from the kitchen!

The sentences marked (a) are affirmative and the sentences marked (b) are imperative. In the imperative sentences, the prefix *meN-* is never present. The affirmative sentences such as those in (a) in which the verbs are without the prefix *meN-* are particularly common in informal spoken language and in the newspapers. There is a growing tendency, however, to use such verbs in formal language as well. It is interesting to note that the verb *memakan* (90) even sounds rather uncommon according to our informants, an opinion which we also share. The verb *makan* (94) is much more common, though the two verbs essentially have the same meaning. This phenomenon is also observable in the use of the verb *minum* *drink*.

As we can see from the English translations, the meanings of sentences (90) to (93) are respectively the same as those of (94) to (97), except for the imperative aspect added to the (b) sentences. In other words, the deletion of the prefix *meN-* does not seem to change the meanings. We therefore conclude that the affixation is not triggered by the inchoative derivation. Recalling our theoretical assumption in Chapter I that action verbs are action processes, the affixation can be considered as semantically redundant. This semantic redundancy of *meN-* appears to support our hypothesis about the obligatory Object in Chapter I. Thus, the conclusions we made earlier about the prefix are not contradicted.

The above conclusion seems to be also supported by the fact that in passivisation the prefix *meN-* is always detached from the verb and replaced by *di-*. We will see more of this in Chapter V. Ramlan (1967:51) also suggests that *meN-* is notionless when added to certain verbs, but he does not present any semantic ground to support his suggestion.

Further data also show that some verbs which are semantically actions reject the prefix *meN-*. The following sentences, for instance, are not acceptable:

- *(98) Toni menduduk di kursi.
 Toni sit on chair
- *(99) Adik menidur di lantai.
 Younger brother sleep on floor

The verbs *menduduk* and *menidur* are anomalous. On the basis of the traditional approach, it may be argued that the anomaly is due to the fact that the base verbs are intransitive. This argument, however, is immediately countered by the fact that (100) is acceptable:

- (100) Siddik melompat.
 A = O V
 Siddik jumped.

The verb lompat, which is the basic verb in (100), is of the same type as those in (98) and (99) in terms of coreferentiality of Agent and Object. Note that we interpret duduk and tidur here as action locative verbs. The meanings of these verbs are respectively 'to assume a sitting position' and 'to assume a sleeping position' or 'lie down'. In BI, they are locative verbs. The traditional argument, then, does not seem to be reliable.

The data presented above indicate that there is an inconsistency in the affixations of meN- to bases which are actions. Such an inconsistency leads us to the conclusion that the affixations are basically deviations. Unfortunately, at present we are not in a position to provide an answer to the question as to why such deviations have occurred, because the question seems to require diachronic evidences, which are beyond the scope of this study. Suffice it, therefore, to conclude synchronically that the prefix meN- is semantically redundant, whenever its affixation to a base which is an action verb does not result in an anomaly. As an indication of this conclusion, in the following discussions we will put the prefix meN- between parentheses, though throughout the data we will keep it attached to the verbs as usual.

We are now in a position to formulate the rule of inchoative derivation we have discussed so far. We have concluded that this process can occur only to basic state verbs. Its occurrence triggers the affixation of meN- in the surface structure. The rule then may be as follows:

ID- Rule:

V state	—————>	V process
root		root + [inchoative]
<hr/>		
verb base		meN- + verb base

This ID- Rule (Inchoative Derivation Rule) states that a process verb can be optionally derived from a basic state verb by the addition of the derivational feature [inchoative] to the root. This derivational process triggers the affixation of meN- to the verb base in the surface structure.

With respect to productivity as we discussed in Chapter I, our investigation indicates that this rule has high actual productivity. Its potential productivity can be seen from the fact that there are certain basic state verbs which sound rather uncommon or strange to the speakers when the prefix meN- is attached to them, though they are not anomalous. The following sentences are examples:

- ?(101) Gadis itu mencantik.
 O V
 girl the become-pretty
 The girl became pretty.
- ?(102) Pak Salim memuda.
 O V
 father Salim become-young
 Mr Salim became young.

The state verbs are cantik *pretty* and muda *young*. The derived verbs are mencantik and memuda.

Our postulation that there is potential productivity is supported by the fact that a derived verb which was uncommon in the past has become commonly used today. We happened to find the following example in our investigation:

- (103) Kesehatan presiden membaik.
 O V
 health president become-good
 The president's health became good.

The verb membaik which is derived from the basic state baik *good* had not been used or was at least still uncommon a few years ago to the best of our knowledge. This is also confirmed by our informants. During our investigation, however, we often came across this verb, and in fact it is common today.

The derived verbs such as those in (101) and (102), then, may be considered as being potential on the ground that their semantic formation is not against the rule, and, therefore, they bear high probability to appear in common use.

In addition to what we have discussed, there is another type of inchoative derivation in BI. The process is illustrated by the following sentences:

- (104) Saya kedinginan (oleh udara itu).
 E V O
 I suffer-cold (by weather the)
 I suffered from the cold (of the) weather.
- (105) Anjing itu kepanasan (oleh matahari).
 E V O
 dog the suffer-hot (by sun)
 The dog suffered from the heat of the sun.
- (106) Mahasiswa itu kebingungan (oleh soal itu).
 E V O
 student the get-confused (by problem the)
 The student got confused (by the problem).
- (107) Sani ketakutan (oleh suara aneh itu).
 E V O
 Sani become-afraid (by voice strange the)
 Sani became afraid (of the strange voice).

The basic verbs in sentences (104) to (107) are *dingin*, *panas*, *bingung*, and *takut*. The first verbs are states and the last two are state experiential. Morphologically the affixes *ke - an* have been attached to these verb bases, which results in the verbs *kedinginan*, *kepanasan*, *kebingungan*, *ketakutan*. Each of these verbs designates a psychological process of change undergone by the experiencer with respect to the entity specified by the Object. Sentences (104) to (105) mean that the experiencers (*Saya I* and *anjing dog*) undergo sensational processes of change with respect to the cold of the weather and the heat of the sun. Sentence (106) means that the experiencer (*mahasiswa student*) undergoes a cognitive process of change with respect to the problem. Sentence (107) means that the experiencer (*Sani*) undergoes an emotional process of change with respect to the strange voice. The entities specified by the Objects, then, may be regarded as the stimuli for the experiences. We may note as well that the Objects are deletable; therefore, they are placed between parentheses.

That the verbs are processes is evident from the fact that they can take the temporal modal *sedang*, but cannot be used to construct command imperatives, as can be seen in (108)a and b:

- (108) a Saya sedang kedinginan (oleh udara itu).
 E V O
 I was suffering from the cold (of the weather).
 *b Kedinginan!

Furthermore, sentences (104) to (107) can also be the answers to the question Apa yang terjadi kepada N? *What happened to N?*

Examples such as (104) to (107) show that in BI certain state and state experiential verbs may be converted into process experiential verbs. We consider that the conversions are also inchoative derivations, since the derived verbs are processes. We may therefore formulate the second rule of inchoative derivation as follows:

ID- Rule 2:

V state	—————>	V process
(experiential)		experiential
root		root + [inchoative]
-----		-----
verb base		ke + verb base + an.

This rule states that a basic state or state experiential verb may be optionally converted into a process experiential verb by the addition of the derivational feature [inchoative] to the root. The process triggers the affixation of *ke - an* in the surface structure.

The actual productivity of the above rule seems to be very limited. The most common verbs generated by this rule in addition to the examples presented earlier are *kesakitan* *suffer from pain*, *kelaparan* *suffer from hunger*, *kesunyian* *suffer from loneliness*, *kegerahan* *suffer from suffocating weather*, *keheranan* *become or get astonished*, and *ketahuan* *become known*. They are respectively derived from *sakit* *ill*, *painful*, *lapar* *hungry*, *sunyi* *lonely*, *gerah* *suffocated*, *heran* *astonished*, and *tahu* *know*.

To conclude the discussion of inchoative derivation, let us state briefly that inchoative derivation in which a process is derived from a basic state is marked in the surface structure by the affixation of *meN-* to the verb base. A very limited number of basic state or state experiential verbs may be converted into a process experiential by the inchoative derivation. This is marked by the affixation of *ke - an*.

3.2. Causative derivations

As we hinted in 1.5., Chapter I, Chafe (1970b:129) proposes that an action process verb may be derived from a basic or derived process by the addition of the derivational feature [causative]. He also suggests the possibility of deriving an action-process verb from a basic state by the addition of the derivational features [inchoative + causative] simultaneously. It is also indicated that in English a causative derivation is not regularly marked by an affixation in the surface structure, though certain affixes such as *-en* as in 'widen', *en-* as in 'enlarge', and *-ise* as in 'legalise' mark that the derived verbs are action processes. We may recall that Chafe distinguishes between action and action process verbs. As we decided in 1.4.3., Chapter I, in the present study we do not make such a distinction, therefore, we use only the term action.

Our investigation of BI indicates that: (1) an action verb can also be derived from a basic state or process by the addition of the simultaneous derivational feature [_{inchoative} _{causative}], or from a basic process by the addition of the derivational feature [_{causative}]; (2) this derivational process regularly triggers the affixation of (meN-)-kan, (meN-)-i, or (meN-)+ per- in the surface structure. The forms meN- and per- are prefixes, and the forms -kan and -i are suffixes. Therefore, we postulate that in BI there are three major kinds of causative derivation. For the reason that will be given later, we propose to call them respectively kan- causative derivation, i- causative derivation, and per- causative derivation. We will explore each of them in the present section.

3.2.1. Kan- causative derivations

We will first observe this process as involving the four subtypes of basic state verbs. The following data are presented as examples:

- (109) Penduduk kampung melebarkan jalan itu.
 A V O
 inhabitant village make-wide road the
 The villagers widened the road.
- (110) Murid-murid sedang membersihkan pekarangan sekolah.
 A V O
 pupil going-on make-clean yard school
 The pupils are cleaning the school yard.
- (111) Wali kota meresmikan pembukaan konferensi itu.
 A V O
 guardian city make-official opening conference the
 The mayor officiated at the opening of the conference.
- (112) Tuti menggembarakan orang tuanya dengan hadiah Natal.
 A V E O
 Tuti make-pleased person-old-her with present Christmas
 Tuti pleased her parents with a Christmas present.
- ?(113) Pak Burhan memunyai Toni sebuah skuter.
 A V B O
 father Burhan make-possess Toni a scooter
 Mr Burhan gave Toni a scooter.
- (114) Para menteri luar negeri mengadakan konferensi di Paris.
 A V O L
 plural minister foreign affairs make-exist conference in Paris
 Ministers of Foreign Affairs held a conference in Paris.

The basic verbs in the above sentences are lebar *wide*, bersih *clean*, resmi *official*, gembira *happy*, pleased, punya *have*, possess, ada *exist*. The verbs in (109) to (111) are states, the verb in (112) is a state experiential, the verb in (113) is a state benefactive, and the verb in (114) is a state locative. The affixes which are attached to these verb bases are obviously (meN-) and -kan. The derived verbs are actions, action experiential, action benefactive, and action locative, as we can see from the presence of the Agents and Objects in their semantic structures.[†]

[†]See page 147.

Before we draw a conclusion from the above descriptions, we should note that we put a question mark before (113) indicating that the sentence is uncommon, but not anomalous. Two other examples of this kind in our data are the following:

?(119) Tuti mengetahui ceritera itu kepada kami.

A V O E
Tuti make-known story the to we
Tuti made the story known to us.

(120) Saya menyukakan adik dengan rambutan.

A V E O
I make-like younger brother with rambutan
I pleased my younger brother with rambutan.

Sentences (113), (119), and (120) can still be felt intuitively to convey the notions as indicated by the English translations, though the sentences are uncommon. Instead of the verb mengetahui (115), the verb memberitahukan is commonly used. The base in this last verb is beri-tahu *give know, inform or tell* which is a compounded form. The verb menyukakan (120) is occasionally used, though the common verb is mengembirakan *make pleased or glad*.

On the basis of the evidence discussed above, we may draw the following conclusions:

- (1) Kan-causative derivation can occur with all types of basic state verbs.
- (2) In this process the derivational features [^{inchoative}_{causative}] are added simultaneously to the root to derive an action verb.
- (3) This causative derivation triggers the affixation of (meN-)-kan in the surface structure.
- (4) The affixes (meN-)-kan are the surface markers of the derivational features [^{inchoative}_{causative}], and at the same time they mark that the verb is an action. The prefix meN- is deletable.

The first rule of kan- causative derivation may be formulated as follows:

Kan- CD Rule 1:

V state	—————>	V action
experiential		experiential
benefactive		benefactive
locative		locative
root		root + [^{inchoative} _{causative}]

verb base		(meN-) + verb base + kan

This kan- CD Rule (kan- Causative Derivation Rule) states that an action verb may be optionally derived from a basic state by the addition of the derivational features [^{inchoative}_{causative}] to the root simultaneously, and that the type of the derived action is parallel to the type of the basic state. The derivational process triggers the affixation of (meN-)-kan in the surface structure. Note that the prefix meN- is placed between parentheses to indicate that it is deletable. The deletability of this prefix is one of the reasons why we call this derivation kan- causative derivation instead of (meN-)-kan-causative derivation. This explanation applies also to the other two causative derivations.

Our investigation shows that kan- CD Rule 1, like the Inchoative Derivation Rule, has also high actual productivity. The verbs in (113), (119), and (120) may be considered as examples of the potential productivity of this rule.

Let us now turn our attention to the involvement of basic process verbs in kan- causative derivation. As examples we present the following data:

- (121) Ahli pertanian itu menumbuhkan bibit karet.
 A V O
 expert agriculture the make-grow seedling rubber
 The agricultural scientist made the rubber seedlings grow.
- (122) Toni membimbangkan gadis itu dengan suratnya.
 A V E O
 Toni make-doubt girl the with letter-his
 Toni made the girl doubtful by his letter.
- (123) PSMS¹³ mengalahkan Grasshopper¹⁴ dua angka.
 A V B O
 PSMS make-lose Grasshopper two point
 PSMS beat Grasshopper by two points.
- (124) Mereka menimbulkan kapal selam itu ke permukaan air.
 A V O L
 they make-emerge ship dive the to surface water
 They made the submarine emerge on the surface of the water.

The basic verbs in the above sentences are tumbuh *grow* (121), bimbang *in doubt* (122), kalah *lose* (123), and timbul *emerge* (124). They are respectively process, process experiential, process benefactive, and process locative.

The derived verbs are respectively action, action experiential, action benefactive, and action locative as indicated by the cases marked underneath the sentences. Each of these verbs can take the temporal modal sedang and can be used in command imperative sentences as in (125) and (126):

- (125) a PSMS sedang mengalahkan Grasshopper dua angka.
 A V B O
 PSMS is beating Grasshopper two points.
 b Kalahkan dia!
 V B
 Beat him!
- (126) a Toni sedang membimbangkan gadis itu dengan suratnya.
 A V E O
 Toni is making the girls doubtful with his letter.
 b Bimbangkan gadis itu!
 V O
 Make the girl doubtful!

Sentences (b) are command imperative. For the same reason as we stated in the above examples too the prefix meN- is deletable.

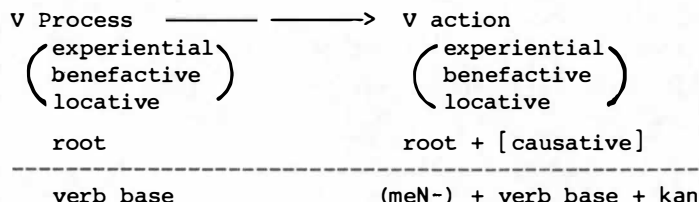
On the basis of the above description, then, we may draw the following conclusions:

- (1) Kan- causative derivation can occur with all types of basic process verbs.
- (2) In this process the derivational feature [causative] is added to the root to derive an action verb.

- (3) This causative derivation triggers the affixation of (meN-)-kan in the surface structure, but the prefix meN- is deletable.
- (4) The suffix -kan is the surface marker of the derivational feature [causative], and at the same time it marks that the verb is an action.

The second rule of kan- causative derivation may be formulated as follows:

Kan- CD Rule 2:



This rule states that an action verb may be optionally derived from a basic process by the addition of the derivational feature [causative] to the root, and that the type of the derived action is parallel to the type of the basic process. The derivational process triggers the affixation of (meN-)-kan in the surface structure.

Our investigation indicates that this rule has very high actual productivity. We have not come across any deviation, neither have we seen any example of potential productivity.

In addition to what we have discussed above, the affixation of -kan appears to occur also in bases which are semantically actions. We present the following data as examples:

- (127) Jamal melemparkan mangga itu ke dalam air.
 A V O L
Jamal throw mango the into water
Jamal threw the mango into the water.
- (128) Orang tua itu memukulkan tongkatnya kepada batu.
 A V O L
person old the strike stick-his onto stone
The old man struck his stick on(to) the stone.
- (129) Sondang memasak nasi untuk kami.
 A V O B
Sondang help-cook rice for we
Sondang cooked rice for us.
- (130) Karim membuat layang-layang untuk saya.
 A V O B
Karim help-make kite for I
Karim made a kite for me.
- (131) Pemerintah mendatangkan seorang ahli gizi dari AS.
 A V O L
government make-come a person expert nutrition from U.S.A.
The government invited a nutritional expert from the U.S.A.

The basic verbs in the above sentences are lempar (127), pukul (128), masak (129), buat (130), and datang (131). The first four verbs are action verbs and the last is an action locative verb.

On the basis of the morphological criterion, it is obvious that *kan-* has been attached to the verb bases. The derivational processes, however, are not causative, since the basic verbs are actions and the derived ones are also actions. What kinds of derivations are these processes then?

In sentences (127) and (128), the derived verbs are action locative verbs, because the verbs require the presence of Locative cases. We therefore hold that the derivations that have occurred to the basic verbs are locative derivations in which the derivational feature [locativiser] is added to the roots.

In sentences (129) and (130), the derived verbs are action benefactive verbs, because they require the presence of Benefactive cases. Therefore, we hold that the derivations that have occurred to the basic verbs are benefactive derivations in which the derivational feature [benefactiviser] is added to the roots. It is interesting to note that the basic verbs which can be converted by this derivational feature are only those related to creativity. The verbs *masak* *cook* and *buat* *make*, for instance, designate actions of creativity.

Other examples of action verbs that can be converted into action locative verbs are *tikam* *stab*, *ikat* *tie up*, *gosok* *rub*, *tulis* *write*, and *tembak* *shoot*. Other examples of action verbs that can be converted into action benefactive verbs are *bangun* *build*, *bikin* *make*, *jahit* *sew*, and *pasang* *fix*.

The derived verb in (131), however, does not seem to be analysable in the same manner as the verbs in (127) to (130). The basic verb *datang* is an action locative, and the derived verb *mendatangkan* is also an action locative verb. Thus, the derivation does not change the type of the basic verb. This occurrence, therefore, appears to be also against the definition of derivation stated in Chapter I, section 1.5. How, then, should this occurrence be accounted for?

The verb *datang*, as we discussed in Chapter II, section 2.12., is one of the action locative verbs which have coreferential Agent and Object in their semantic structure. As can be seen in sentence (131) the Agent and Object are not coreferential. However, there is another Agent which is coreferential with Object involved in the sentence. These coreferential Agent and Object cannot be deleted. Sentence (132), for instance, is unacceptable:

- *(132) *Pemerintah* *mendatangkan* *dari* *AS*.
government *make-come* *from* *U.S.A.*

Facts such as the above lead us to the conclusion that the derivation which applies to an action verb such as *datang* involves an embedded structure in which there is an Agent that is coreferential with an Object.

Before we come to the conclusion of this discussion, let us observe the following sentences:

- (133) *Ayah* *membelikan* *baju* *baru* *untuk* *ibu*.
 A V O Bo
father *buy* *dress* *new* *for* *mother*
Father *bought* *a new dress* *for* *mother*.
- (134) *Tuti* *memberikan* *buku* *itu* *kepada* *saya*.
 A V O Bo
Tuti *give* *book* *the* *to* *me*
Tuti *gave* *the book* *to* *me*.
- (135) *Sondang* *mengambilkan* *teh* *dari* *dapur* *untuk* *saya*.
 A V O L Bo
Sondang *take* *tea* *from* *kitchen* *for* *I*
Sondang *took* *(a glass of) tea* *from* *the kitchen* *for* *me*.

- * (136) Toni menghitung telur itu.
 A=E V O
Toni count egg the
Toni counted the eggs.

The basic verbs in the above sentences are *beli*, *beri*, *ambil*, and *hitung*. The first two verbs are action benefactive, the third is an action locative, and the last is an action experiential verb. The affixes (meN-)-kan have obviously been attached to these verbs.

Sentences (133) to (135) have the same meaning as sentences (137) to (139):

- (137) Ayah membeli baju baru untuk ibu.
 A V O Bo
Father bought a new dress for mother.
- (138) Tuti memberi buku itu kepada saya.
 A V O B
Tuti gave the book to me.
- (139) Sondang mengambil teh dari dapur untuk saya.
 A V O L Bo
Sondang took (a glass of) tea from the kitchen for me.

On the basis of these facts, we may conclude that the suffix -kan in (133) to (135) is semantically vacuous. In other words, the affixations of (meN-)-kan to the basic verbs are not triggered by kan- causative derivations as we have seen in sentences (127) to (130) as well as in sentences (137) and (139). Bo stands for outer Benefactive, that is, this case is not dependent upon the selectional feature of the verb (Cook 1973a:57). The Benefactives in sentences (133)-(135) and (137)-(139) are deletable.

Sentence (136) is not acceptable. The acceptable sentence is (140):

- (140) Toni menghitung telur itu.
 A=E V O
Toni counted the eggs.

The above facts lead us to the conclusion that the affixations of (meN-)-kan to action benefactive, and action experiential verbs, as well as to action locative verbs with non-coreferential Agents and Objects may be regarded as surface structure processes which may have occurred due to analogy.

In order to account for the facts illustrated by sentences (127) and (128) the following rule of locative derivation may be posited:

Locative Derivation Rule:

V action	———>	V action
		locative
root		root + [locativiser]
<hr/>		
verb base		(meN-) + verb base + kan

This rule states that an action locative verb may be optionally derived from a basic action verb by the addition of the derivational feature [locativiser] to the root. The derivational process triggers the affixation of (meN-)-kan in the surface structure.

In order to account for the facts illustrated by sentences (129) and (130) the following rule of benefactive derivation may be posited:

Benefactive Derivation Rule:

V action	—————>	V action benefactive
root		root + [benefactiviser]
verb base		(meN-) + verb base + kan

Condition: The basic verb is an action of creativity.

This rule states that an action benefactive verb may be optionally derived from a basic action verb by the addition of the derivational feature [benefactiviser] to the root. The basic verb should be an action of creativity. This derivational process triggers the affixation of (meN-)-kan in the surface structure.

In order to account for the fact illustrated by sentence (131), we propose a rule such as the following:

V action locative	—————>	V action locative
A = O		$\frac{A, S}{A = O}$
verb base		(meN-) + verb base + kan

Note that $\frac{S}{A = O}$ indicates that the coreferential Agent and Object are embedded.

This rule states that a basic action-locative verb with coreferential Agent and Object in its semantic structure may be optionally converted into another action locative verb which involves embedded coreferential Agent and Object in the semantic structure. The process triggers the affixation of (meN-)-kan in the surface structure.

We have not decided at present what is the best term to use for this derivation, but it may be called 'kan- embedded derivation'.

3.2.2. I- causative derivation

The second kind of causative derivation is i- causative derivation. As in the discussion of kan- causative derivation, we will first observe this derivational process involving basic state verbs. The following data serve as examples:

- (141) Tuti memerahi bibirnya.
 A V L
 Tuti put-red-on lip-her
 Tuti reddened her lips.
- (142) Anak itu membasahi rambutnya.
 A V L
 kid the put-wet-on hair-his
 The kid wet his hair.

It should be noted that, as in kan- causative derivation, the prefix (meN-) in the above examples is also semantically redundant. As in (147)b to (148)b this prefix is absent, but the meanings conveyed by the verbs are the same as those with the prefix. In the affirmative sentences, (meN-) can also be omitted. Thus, (149), for instance, is acceptable:

- (149) Tuti merahi bibirnya.
 A V L
 Tuti reddened her lips.

As we mentioned above the basic verb in (144) is a state experiential. However, the derived verb *mengetahui* does not designate any action. The verb is the same as the basic verb *tahu* *know*. It is interesting to note that the verb base in *mengetahui* is actually *ketahui* which is also the same as *tahu* semantically. This conclusion is based on the phonological ground that *meN-* becomes *meng-* /*menj*/ only when the base has a velar phoneme initially. We are not certain at present what the meaning is of *ke-* in *ketahui*, but it seems that it is added simultaneously with the suffix *-i*, since there is no word *ketahu* or *tahui*. Since this kind of *ke-* is only found in this particular verb, we may consider it an idiosyncrasy. Thus, the three verbs convey the same meaning as we can see in (150):

- (150) a Orang tuanya tahu (akan) hal itu.
 E V O
 His parents know (about) the matter.
 b Orang tuanya ketahui hal itu.
 E V O
 His parents know the matter.
 c Orang tuanya mengetahui hal itu.
 E V O
 His parents know the matter.

The preposition *akan* *about* in sentence (a) is often deleted. Based on the above data, we may conclude that the affixes (meN-)-i, when added to such a basic verb, are semantically vacuous. Other verbs of this type are *suka* *like* and *ingin* *want*.

The basic state benefactive verb (145) apparently has a characteristic similar to that of the state experiential verb. Sentence (145) in which the derived verb *mempunyai* is used is acceptable. This verb, however, is obviously the same as the basic verb, as we can see in (151):

- (151) a Toni punya sebuah mobil baru.
 B V O
 Toni has a new car.
 b Toni mempunyai sebuah mobil baru.
 B V O
 Toni has a new car.

The meaning conveyed by the above two sentences is the same. On the basis of these examples, we may conclude that the affixes (meN-)-i in (145) are semantically vacuous.

In (146) as we mentioned earlier, the basic verb is a state locative. The sentence is unacceptable; therefore, we conclude that *i-* causative derivation cannot occur with this type of verb.

Examples such as (144) to (146) motivate us to draw the conclusions that i-causative derivation does not occur with basic state experiential, state benefactive, and state locative verbs. The occurrence of the affixations of (meN-)-i to verb bases of these types results in either anomalies or semantic vacuities, which indicate that such affixations are not triggered by any semantic process.

Based on the evidence we discussed above, then, the following conclusions can be drawn:

- (1) I- causative derivation can occur with basic state verbs.
- (2) In this process the derivational features [_{inchoative}
causative] are added simultaneously to the root in order to derive an action locative verb.
- (3) This causative derivation triggers the affixation of (meN-)-i in the surface structure.
- (4) These affixes mark the derivational features [_{inchoative}
causative], and at the same time they mark that the verb is action locative.

The rule of i- causative derivation may be formulated as follows:

I- CD Rule:

V state	—————>	V action locative
root		root + [_{inchoative} causative]
<hr/>		
verb base		(meN-) + verb base + i

This rule states that an action locative verb may optionally be derived from a basic state verb by the addition of the derivational features [_{inchoative}
causative] simultaneously to the root. The process triggers the affixation of (meN-)-i in the surface structure.

Due to the constraint implied in the above rule, it is obvious that kan-CD Rule 1 has wider productivity. Our investigation also indicates that I- CD Rule 1 has considerable potential productivity, as exemplified by the following sentences:

- ?(152) Gadis itu mencantiki dirinya.
 A V L
 girl the make-pretty herself
 The girl made herself pretty.
- ?(153) Pak Salim menggemuki lembunya.
 A V L
 Mr Salim make-fat cow-his
 Mr Salim fattened his cow.

These sentences are not anomalous and they also follow the rule, but they still sound strange or at least rather uncommon.

Our investigation further indicates that i- causative derivation does not occur to basic process verbs. Sentences such as the following are not acceptable:

- * (154) Kami melayui daun-daun itu.
 We wither leaves the

- * (155) Pak Sudin merisau biaya hidup.
Mr Sudin worry cost of living
- * (156) Tuti membimbangi kata-kata pemuda itu.
Tuti doubt words young-man the
- * (157) Ahmad memenangi lima ribu rupiah.
Ahmad win five thousand rupiah
- * (158) Mereka menimbuli kapal selam itu.
They emerge submarine the

The basic verbs in the above sentences are *layu wither* (154), *risau worry* (155), *bimbang doubt* (156), *menang win* (157), and *timbul emerge* (158). The first verb is a process, the next two verbs are process experiential, the fourth verb is process benefactive, and the last is a process locative verb.

Finally, let us observe whether or not *i-* causative derivation occurs with basic action verbs. As examples, we present the following data:

- (159) Kami menuruni bukit itu.
 A=O V L
we come-down hill the
We descended the hill.
- (160) Mahasiswa itu mendatangi temannya.
 A=O V L
student the come-to friend-his
The student went to see his friend.

The basic verbs in the above sentences are *turun* (159) and *datang* (160). The sentences are of the same meaning as sentences (161) and (162) respectively:

- (161) Kami turun dari bukit itu.
 A=O V L
we come down hill the
We descended the hill.
- (162) Mahasiswa itu datang kepada temannya.
 A=O V L
student the come to friend-his
The student went to see his friend.

The verbs *turun* and *datang* which are our concern in this case, then, are action locative verbs. As we can see from the case marked underneath the sentences, the semantic structures of these verbs are the same as the semantic structures of the verbs *memuruni* and *mendatangi* in (159) and (160). In other words, the two pairs of verbs are of the same type. We may conclude therefore that there are no causative derivations taking place in (159) and (160). What, then, has triggered the affixations of (meN-)-i to the verb bases? An answer to this question seems to reside in the fact that the directional prepositions *dari from*, *down*, and *kepada to* are respectively not present in sentences (159) and (160). The absence of these prepositions indicates that the notions of direction of motion have been lexicalised into the verbs *memuruni* and *mendatangi*. The lexicalisations conform to what we quoted from Gruber and Cook earlier. There is reason to believe, therefore, that the affixations of (meN-)-i to the verbs *turun* and *datang* in the above examples have been triggered by the lexicalisations.

Our investigation indicates that the process of lexicalisation as described above occurs only to a limited number of action locative verbs. Other examples of action locative verbs that can undergo the process are *naik ascend*, *terbang*

fly, and *lompat jump*. In the semantic structures of these verbs the Agents and Objects are coreferential.

The above examples happen to be only action locative verbs. Does *i-* causative derivation occur with other types of action verbs? Our investigation indicates that it does not. Let us observe the following sentences:

- (163) Toni memukuli Salim.
 A V O
 Toni beat-repeatedly Salim
 Toni beat Salim repeatedly.
- (164) Petani itu mengirai telur itu.
 A = E V O
 farmer the count-repeatedly egg the
 The farmer counted the eggs repeatedly.
- (165) Dia menjual barang-barangnya kepada kami.
 A V O B
 he sell-repeatedly possession-his to we
 He kept on selling his possessions to us.

The basic verbs in the above sentences are *pukul* (163), *kira count* (164), and *jual sell* (165), which are respectively action, action experiential, and action benefactive. The verbs *memukuli*, *mengirai*, and *menjual* are respectively of the same type as the basic verbs. Thus, there are no derivations taking place. The affixations of (meN-)-*i* to the basic verbs are triggered by a different process which will be discussed in Chapter V.

On the basis of the facts discussed above, we may conclude that:

- (1) *i-* causative derivation does not occur with action verbs;
- (2) The affixations of (meN-)-*i* may occur to a limited number of verb bases which are semantically action locative verbs with coreferential Agents and Objects; the affixations are triggered by the lexicalisations of the notions of direction of motion.

We close the discussion of *i-* causative derivation with the conclusion that this derivation occurs with basic state verbs (excluding state experiential, state benefactive, and state locative), and that in the process the state verb is converted into an action locative verb. It may be noted as well that in the derivational process, the notion of direction of motion is involved. The derivational process triggers the affixation of (meN-)-*i* in the surface structure.

3.2.3. Per- causative derivation

The third kind of causative derivation is *per-* causative derivation. This derivation is distinct from the other two kinds in that besides the derivational features [*inchoative*], it also involves another type of feature simultaneously. [*causative*]

Let us observe the following data:

- (166) Ibu memperendah ayunan itu.
 A V O
 mother make-lower swing the
 Mother made the swing lower.

- (167) Hartini memperlangsing badannya.
 A V O
 Hartini make-slimmer body-her
 Hartini made her body slimmer.
- (169) Sudin mempertajam pisaunya.
 A V O
 Sudin make-sharper knife-his
 Sudin made his knife sharper.
- (170) Mereka memperindah kota itu.
 A V O
 they make-more-beautiful city the
 They made the city more beautiful.

The basic verbs in the above sentences are rendah *low* (166), langsing *slim* (167), hitam *black* (168)[†], tajam *sharp* (169), and indah *beautiful* (170). Like their English equivalents, these verbs are states.

Applying the morphological criterion, we find out that the affixes (meN-)+per- have been added to the verb bases to form the verbs memperendah, memperlangsing, memperhitam, mempertajam, and memperindah. These derived verbs are actions, as we can see from the presence of the Agents and Objects in their semantic structures. Besides, the verbs can take the temporal modal sedang and can be used in command imperative sentences, as in (171):

- (171) a Ibu sedang memperendah ayunan itu.
 A V V O
 Mother is making the swing lower.
- b Perendah ayunan itu!
 V O
 Make the swing lower!

Since the basic verbs are states and the derived ones are actions, we may conclude that causative derivations have occurred.

The question now is whether or not the process triggers the affixation of meN+per- or (meN-)+per-. Evidently, as in kan- and i- causative derivations, (meN-) in this derivation is also semantically redundant. The verbs can also be used without meN- as we can see in the imperative sentence (171)b above. In affirmative sentences, the prefix can also be deleted as in (172):

- (172) Hartini perlangsing badannya.
 A V O
 Hartini made her body slimmer.

On the basis of the above evidence, then, we may conclude that the causative derivation which has occurred with the basic verbs has triggered only the affixation of (meN-)+per- in the surface structure. In other words, the prefix meN- is deletable.

The basic verbs involved in the above examples are only states. Can the derivation also occur with the other three types of state verbs? Let us observe the following data:

- * (173) Pak Tahir mempertahu hal itu.
 Mr Tahir know case the
- * (174) Dia memperpunya Tuti sebuah villa.
 He have Tuti a villa

[†] See page 147.

- * (175) Toni memperdiam mereka di tempat ini.
Toni live they in place this

The basic verbs in the above sentences are tahu (173), punya (174), and diam (175), which are respectively state experiential, state benefactive, and state locative. The sentences are anomalous. We may conclude, therefore, that per- causative derivation does not occur with the above types of state verb.

Our investigation also reveals that per- causative derivation does not occur with process and action verbs. The following sentences, for instance, are unacceptable:

- * (176) Ahli pertanian itu mempertumbuh bibit karet.
Expert agriculture the grow seedling rubber
- * (177) Pak Burhan memperkalah lima ribu rupiah.
Mr Burhan lose five thousand rupiah
- * (178) Toni memperbimbang Tuti.
Toni doubt Tuti
- * (179) Anak-anak itu memperlempar mangga.
Children the throw mango
- * (180) Pemerintah memperdatang seorang ahli gizi.
Government come a expert nutrition

The basic verbs in (176) to (180) are tumbuh, kalah, bimbang, lempar, and datang. The first three verbs are respectively process, process benefactive, and process experiential, and the last two are respectively action and action locative verbs.

Before we come to the conclusion of this section, we need to make further observation of the semantic features represented by the prefix per-.

As we can see in the approximate English equivalents in (166) to (170), the derived verbs convey not only a notion of [^{inchoative}_{causative}], but also a notion of 'increase'. By 'increase' we mean that a certain state or condition becomes higher or lower in degree. In other words, there is an 'increase' either toward the positive or the negative, or there is an 'increase of height' and an 'increase of lowness' with respect to the degree of state or condition. Thus, memperendah in (166), for instance, means that the swing is relatively low, and it is made lower. In other words, its degree of lowness is increased. The term 'increase' may be not the most appropriate one in this case, but for lack of a more appropriate term we have decided to use it. In order to account for the notion, we have to postulate the existence of the feature <increase> which is simultaneously involved with the derivational features [^{inchoative}_{causative}] in this derivational process. The feature <increase> is considered as an inflectional feature, since it does not have the characteristics of a selectional feature.

On the basis of the above discussion, we may finally draw the following conclusions:

- (1) Per- causative derivation can occur only with basic state verbs.
- (2) In this process the derivational features [^{inchoative}_{causative}] and the inflectional feature <increase> are simultaneously added to the root to derive an action verb.

- (3) This causative derivation triggers the affixation of (meN-)+per- in the surface structure.
- (4) The affixes (meN-)+per- mark the derivational features $\begin{bmatrix} \text{inchoative} \\ \text{causative} \end{bmatrix}$ and the inflectional feature <increase>, and at the same time they mark that the verb is an action.

The rule of per- causative derivation may be formulated as follows:

Per- CD Rule:

$$\begin{array}{ccc}
 \text{V state} & \longrightarrow & \text{V action} \\
 & & \text{<increase>} \\
 & & \text{root} + \left\{ \begin{array}{l} \begin{bmatrix} \text{inchoative} \\ \text{causative} \end{bmatrix} \\ \text{<increase>} \end{array} \right\} \\
 \hline
 \text{verb base} & & (\text{meN-})+\text{per} + \text{verb base}
 \end{array}$$

This rule states that a basic state verb may optionally be converted into an action verb which is simultaneously inflected, by the addition of the derivational features $\begin{bmatrix} \text{inchoative} \\ \text{causative} \end{bmatrix}$ and the inflectional feature <increase> to the root. This derivational process triggers the affixation of (meN-)+per- in the surface structure. Note that we use the braces to indicate the simultaneity. It should also be noted that the term 'state verb' in the rule does not include state experiential, state benefactive, and state locative verb.

Our investigation indicates that this rule, like the i- causative derivation rule, has a rather limited actual productivity.

We have discussed the three kinds of causative derivation in BI. The semantic distinction between these derivations is generally not made clear in most current grammars of BI. As we have seen in the discussions, despite the common fact that they generate action verbs, they are clearly different from each other. As a conclusion of our discussion of the causative derivations, let us state the difference briefly:

- (1) Kan- causative derivation can occur with any of the four types of basic state as well as basic process verbs. In this derivation only the derivational features $\begin{bmatrix} \text{inchoative} \\ \text{causative} \end{bmatrix}$ are involved.
- (2) I- causative derivation can occur only with basic state verbs (excluding state experiential, state benefactive, and state locative). In addition to the derivational features $\begin{bmatrix} \text{inchoative} \\ \text{causative} \end{bmatrix}$, this derivation involves a notion of direction of motion, and, thus, generates only action locative verbs.
- (3) Per- causative derivation can occur only with basic state verbs (excluding state experiential, state benefactive, and state locative). This derivation involved the inflectional feature <increase> and the derivational features $\begin{bmatrix} \text{inchoative} \\ \text{causative} \end{bmatrix}$ simultaneously.

3.3. Resultative derivations

In Chapter I, section 1.5., we indicated that Chafe (1970b:124-125) proposes that a state verb may be optionally derived from an intrinsic process verb by the addition of the derivational feature [resultative]. He also suggests, however, that a state may be derived from an intrinsic action-process by the addition of the derivational features [deactivative-resultative] simultaneously.

In the present section we will show that in BI a state verb may be also derived directly from a basic action verb by the addition of the derivational features [deactivative] simultaneously. This resultative derivation is regularly marked by certain affixations in the surface structure. On the basis of the affixations which are triggered in the surface structure, there are two kinds of resultative derivation in BI, namely, ber- resultative derivation and ter- resultative derivation. We will explore each of them in the following discussions.

3.3.1. Ber- resultative derivation

This derivation triggers the affixation of ber- in the surface structure. Let us observe the following data:

- (181) Kain itu berjahit.
 ^{Os} ^V
 cloth the sew
 The cloth is sewn.
- (182) Permohonan Tini berterima.
 ^{Os} ^A
 application Tini accept
 Tini's application is acceptable.
- (183) Batu itu bertulis.
 ^{Os} ^V
 stone the engraved
 The stone is engraved.
- (184) Pintu rumah itu berukir.
 ^{Os} ^V
 door house the carve
 The door of the house is carved.
- (185) Sayur-sayuran itu berikat.
 ^{Os} ^V
 vegetable the bundle
 The vegetables are bundled.

The basic verbs in the above sentences are jahit *sew* (181), terima *accept* (182), tulis *write* (183), ukir *carve* (184), and ikat *bundle or tie* (185). Except for terima (186), which is an action benefactive, all the verbs are action verbs.

On the basis of the morphological criterion, it is obvious that the prefix ber- has been added to these basic verbs. The verbs berjahit, berterima, bertulis, berukir, and berikat, are derived states. These verbs cannot take the temporal modal sedang and cannot be used in command imperative sentences. Sentences such as the following are acceptable:

- * (186) a Kain itu sedang berjahit!
 Cloth the going-on sew
 b Berjahit!
 Sew!

Since the basic verbs are actions and the derived ones are states, we may conclude that resultative derivations have occurred. There are no possible process verbs which can be derived from the basic action verbs. We therefore further conclude that the resultative derivation has triggered the affixation of *ber-* in the surface structure, and that this prefix is the surface marker of the derivational features [^{deactivative} resultative] and at the same time it marks that the verb is a state.

In the introduction of this section we made an assumption that resultative derivation can occur only to basic action verbs.

The unacceptability of sentences such as the following justifies this assumption:

- * (187) Bibit karet itu sedang bertumbuh.
 Seedlings rubber the going-on grow
 * (188) Tuti sedang berbimbang.
 Tuti going-on doubt
 * (189) Pak Burhan bermenang.
 Mr Burhan win
 * (190) Kapal selam itu bertimbul ke permukaan.
 O V L
 Submarine the emerge to surface water

The basic verbs in (187) to (190) are *tumbuh grow*, *bimbang doubt*, *menang win*, and *timbul emerge* which are respectively process, process experiential, process benefactive, and process locative verb.

Our investigation also indicates that not all action verbs can undergo *ber-*resultative derivation. In the first place, this derivational process cannot occur with basic action verbs with the coreferential Agents and Objects in their semantic structures. Sentences such as the following are anomalous:

- * (191) Pak Ali berdatang.
 Mr Ali come
 * (192) Dia bertiba.
 He arrive
 * (193) Tuti berduduk.
 Tuti sit

We already observed in the previous discussion that the verbs *datang* and *tiba* are action locative verbs with coreferential Agents and Objects in the semantic structure.

Secondly, it is also evident from the following data that resultative derivation cannot occur with action experiential.

- * (194) Keuntungannya berhitung.
 Profit-his calculate
 * (195) Para perajurit berhibur.
 plural soldiers entertain

The basic verbs in (194) and (195) are respectively *hitung* and *hibur*. They are action experiential verbs. The two sentences are unacceptable.

On the basis of the data discussed above, we can now draw the following conclusions:

- (1) Ber- resultative derivation can occur with the basic action verbs with non-coreferential Agents and Objects, and with basic action benefactive verbs.
- (2) In this derivational process the derivational features [deactivative] [resultative] are added simultaneously to the root to derive a state verb.
- (3) This process triggers the affixation of *ber-* in the surface structure, and this prefix is the surface marker of the derivational features [deactivative] [resultative] and at the same time it marks that the verb is a state.

The rule of *ber-* resultative derivation, then, may be formulated as follows:

Ber- Result Rule:

V action (benefactive)	—————> V state
root	root + [deactivative] [resultative]
-----	-----
verb base	ber + verb base

Condition: The action verb has non-coreferential Agent and Object.

This rule states that a state verb may be optionally derived from basic verbs with non-coreferential Agents and Objects and from basic action benefactive verbs by the addition of the derivational features [deactivative] [resultative] simultaneously to the root. This process triggers the affixation of *ber-* in the surface structure.

Our investigation indicates that the above rule does not have high actual productivity. There seems to be a considerable number of basic action verbs which can be converted following the rule, but the derived verbs still sound uncommon, as in the following sentences:

- ?(196) *Kopi ini berminum.*
Coffee the drink
- ?(197) *Rambutan itu berbeli.*
Rambutan the buy
- ?(198) *Mangga itu berlempar.*
Mango the throw
- ?(199) *Tilam itu berpukul.*
Mattress the beat

The basic verbs in the above sentences are *minum*, *beli*, *lempar*, and *pukul*. The sentences are not at all anomalous, but they are still uncommon or strange. Sentence (196), for instance, may mean that the coffee which is in a cup has been partially drunk or tasted by someone else. Similarly, (198) may mean that there is a mark as of something having been thrown at the mango. Sentences such as these in which the verbs seem to be resultatively derived may be considered as examples of potential productivity of the rule.

3.3.2. Ter- resultative derivation

The second kind of resultative derivation is ter- resultative derivation. This derivation triggers the affixation of ter- in the surface structure.

Let us observe the following data:

- (200) Pintu rumah itu terbuka.
 _{Os} _V
 door house the be-opened
 The door of the house is opened.
- (201) Kaki lembu itu terikat.
 _{Os} _V
 leg cow the be-tied
 The cow's legs are tied.
- (202) Semua utangnya terbayar.
 _{Os} _V
 all debt his be-paid
 All his debt is paid.
- (203) Rumah pak Karim terjual.
 _{Os} _V
 house father Karim be-sold
 Mr Karim's house is sold.
- (204) Laba dan rugi terhitung.
 _{Os} _V
 profit and loss be-calculated
 The profit and loss are calculated.
- (205) Hadirin terhibur.
 _E _V
 audience be-entertained
 The audience is entertained.

The basic verbs in the above sentences are buka *open*, ikat *tie*, bayar *pay*, jual *sell*, hitung *calculate*, and hiburan *entertain*. The verbs buka and ikat are actions, the verbs bayar and jual are action benefactive, and the verbs hitung and hiburan are action experiential.

To these basic verbs the prefix ter- has obviously been attached. The verbs terbuka and terikat are states, terbayar and terjual are state benefactive, and terhitung and terhibur are state experiential. In sentences (202) and (203), the Benefactive cases are deletable. It is possible to say sentence (206):

- (206) Rumah pak Karim terjual (kepada saudagar itu).
 _{Os} _V _B
 Mr Karim's house is sold (to the merchant).

In (204) the Experiencer is deletable. Sentence (207) is possible:

- (207) laba dan rugi terhitung (oleh Sudin).
 _{Os} _V _E
 The profit and the loss are calculated (by Sudin).

Note that in (205) the Experiencer is selected as the surface subject. The Object of the verb is deletable. Sentence (208), for instance, is possible:

- (208) Hadirin terhibur (dengan lagu itu).
 _E _V _{Os}
 The audience is entertained (with the song).

That these derived verbs are states is evident from the fact that they cannot take the temporal modal *sedang* and cannot be used in command imperative sentences. Sentences (209)a and b, for instance, are not acceptable:

- * (209) a Semua utangnya sedang terbayar.
 All debt his going on pay
 b Terbayar!
 Be pay.

Since the basic verbs are actions and the derived ones are states, we may conclude that resultative derivations have occurred. These processes have triggered the affixations of *ter-* in the surface structures.

When we observe (200) to (205) more closely, we will see that the verbs convey also a notion of passivity in addition to the derivational features [deactivative resultative]. This notion is evident from the fact that agent nouns can still be remotely felt to be present, and when placed after the verbs the sentences will be in passive constructions, as in (210):

- (210) Pintu rumah itu terbuka (oleh seseorang).
 O V A
 door house the be-opened (by someone)
 The door was opened (by someone).

The addition of an agent noun such as the above is impossible to any of (181) to (185). Sentences such as (211), for instance, do not exist.

- * (211) Kain itu berjahit (oleh Tuti).
 Cloth the sew (by Tuti)

Sentences (200) to (205) may be considered to be what John Anderson (1971:47) calls short passive clauses. He concludes that short passive is ambiguous between stative and non-stative, but suggests that the verbs in short passive clauses can be semantically interpreted as states.

In order to account for the fact that verbs such as those in (200) to (205) are originally passive, and taking John Anderson's suggestion into consideration, we propose that, at least for the purpose of the present study, in *ter-* resultative derivation, not only the derivational features [deactivative resultative] are involved, but also the inflectional feature <passive>. We shall see more of this feature in Chapter V. In other words, the simultaneous features

$$\left\{ \begin{array}{l} \text{[deactivative]} \\ \text{[resultative]} \\ \text{<passive>} \end{array} \right\}$$

are added to the root in such a process.

Besides the data discussed above, we also find sentences such as the following, in which the prefix *ter-* is added to action and action locative verbs:

- (212) Orang tua itu terduduk.
 A = O V
 person old the unintentionally-sit
 The old man sat unintentionally.
 (213) Buku ini terambil.
 O V
 book this be-taken-accidentally
 This book happened to be taken.

As we can see from the meaning of the sentence, the prefixation of *ter-* to the basic verb *duduk* (in this case in the sense of assuming a sitting position) is not triggered by *ter-* resultative derivation. The verb *terduduk* is still an action verb. The prefixation is triggered by an inflectional process, and this will be discussed in Chapter V. A similar explanation applies also to the action locative *ambil* (213). The verb *duduk* is different from the action verbs in (200) and (201) in that it has coreferential Agent and Object in its semantic structure. This appears to be the reason why this verb cannot undergo *ter-* resultative derivation. This is obviously supported by the fact that this derivation involves the feature <passive> which can only be added to action verbs with non-coreferential Agents and Objects. On the basis of facts such as the above, we may conclude that *ter-* resultative derivation cannot occur with action verbs with coreferential Agents and Objects and with action locative verbs.

This derivational process also cannot occur with basic process verbs. Sentences such as (214) to (216) are not acceptable:

- * (214) *Kapal selam itu tertimbul.*
The submarine emerge
- * (215) *Tuti terbimbang.*
Tuti doubt
- * (216) *Pak Kasim termenang lima ribu rupiah.*
Mr Kasim win five thousand rupiah

On the basis of the facts discussed above, we may now draw the following conclusions:

- (1) *Ter-* resultative derivation can occur with basic action verbs with non-coreferential Agents and Objects, action experiential verbs, and action benefactive verbs.
- (2) In this process, the derivational features $\left[\begin{smallmatrix} \text{deactivative} \\ \text{resultative} \end{smallmatrix} \right]$ and the inflectional feature <passive> are simultaneously added to the root to derive a state, state experiential, or state benefactive verb.
- (3) This derivational process triggers the affixation of *ter-* in the surface structure, and this prefix is the surface marker of the simultaneous features

$$\left\{ \begin{array}{l} \text{[deactivative]} \\ \text{[resultative]} \\ \text{<passive>} \end{array} \right\}$$

and at the same time marks that the verb is a state.

The rule of *ter-* resultative derivation may be formulated as follows:

Ter- Result Rule:

$$\begin{array}{ccc} \text{V action} & \longrightarrow & \text{V state} \\ \left(\begin{array}{l} \text{experiential} \\ \text{benefactive} \end{array} \right) & & \left(\begin{array}{l} \text{experiential} \\ \text{benefactive} \\ \text{<passive>} \end{array} \right) \\ & & \text{root} + \left\{ \begin{array}{l} \text{[deactivative]} \\ \text{[resultative]} \\ \text{<passive>} \end{array} \right\} \end{array}$$

 verb base

root + verb base

Condition: The action verb has non-coreferential Agent and Object.

This rule states that a state verb may be optionally derived from a basic action verb by the addition of the simultaneous features

$$\left\{ \begin{array}{l} \text{[deactivative]} \\ \text{[resultative]} \end{array} \right\} \\ \text{<passive>}$$

to the root. The basic action verb may be an action with non-coreferential Agent and Object, and action experiential, or an action benefactive verb. The type of the derived state depends on the type of the basic action verb. This process triggers the affixation of *ter-* in the surface structure.

Our investigation indicates that this rule has high actual productivity. We did not come across any example of potential productivity. It may well be noted finally that the derived verbs generated by both *ber-* and *ter-* resultative derivations are generally translated into English as past participle forms of the equivalent verbs. The distinction between the two as described above, however, should be borne in mind.

3.4. Comparisons

Man has an innate tendency to compare objects or things in the universe with respect to their characteristics, qualities, or conditions. This tendency is a fundamental way of acquiring knowledge, including linguistic knowledge. The notion of comparison, therefore, is universal, though it is expressed differently from language to language.

There are in general three types of comparison, namely (1) comparison of equality, (2) comparison of superiority, and (3) comparison of superlativity. In English, comparison of equality is expressed in sentences such as 'John is as clever as Mary'; comparison of superiority is expressed in sentences such as 'John is cleverer than Mary'; and comparison of superlativity is expressed in sentences such as 'John is the cleverest of all the students'. Thus, in English the three types of comparison are marked in the surface structure respectively by 'as-as', '-er than', and 'the -est'. In BI, the three types of comparison are expressed respectively in sentences such as (217) to (219):

- (217) Johan sepandai Riris.
John as-clever Riris
John is as clever as Riris.
- (218) Johan lebih pandai dari Riris.
John more clever from Riris
John is cleverer than Riris.
- (219) Johan yang terpandai dari semua mahasiswa itu.
John the most-clever from all student the
John is the cleverest of all the students.

As we can see in the above sentences, in BI in the surface structure comparison of equality is marked by the prefix *se-*, comparison of superiority by *lebih dari*, and comparison of superlativity by *yang ter-*. Comparison of equality and superlativity may also be expressed in sentences such as (220) and (221):

- (220) Johan dan Riris sama pandainya.
John and Riris same cleverness
John and Riris are of the same cleverness.

- (221) Johan yang paling pandai dari semua mahasiswa itu.
John the most clever from all students the
John is the cleverest of all the students.

In (220) the basic state verb *pandai* *clever* is nominalised by the suffix *-nya*, and in (221) the adjective modifier (adverb) *paling* is used instead of the prefix *ter-*.

Chafe (1970b:134-136) accounts only for the comparison of superiority on the basis of data from English. In the present section, however, we are not concerned with this second type of comparison, since it does not involve any affixation in BI as we can see in (218) above. The following discussions, then, will deal only with the first and third types as exemplified respectively by (217) and (219).

3.4.1. Equative derivation

As we can see in (217), in BI the notion of comparison of equality is marked by the affixation of *se-* to the verb base in the surface structure. This surface phenomenon leads us to an hypothesis that there is a derivational process 'equative derivation' in which the derivational feature [equativiser] is involved.

To support the hypothesis, we would like to provide the following data:

- (222) Kulit orang asing itu seputih kapas.
 O_S V O_S
 skin person foreign the as-white cotton
 The foreigner's skin is as white as cotton.
- (223) Pak Salim setua ayahku.
 O_S V O_S
 father Salim as-old father-my
 Mr Salim is as old as my father.
- (224) Daerah itu sekering gurun pasir.
 O_S V O_S
 region the as-dry waste sand
 The region is as dry as a desert.
- (225) Tanah itu sekeras batu.
 O_S V O_S
 ground the as-hard stone
 The ground is as hard as stone.

The basic verbs in the above sentences are respectively *putih* *white*, *tua* *old*, *kering* *dry*, and *keras* *hard*. These verbs are states. The prefix *se-* has obviously been attached to the verb bases, which results in the verbs *seputih*, *setua*, *sekering*, and *sekeras*. As we can see from the translations, these verbs convey the notion of equality. Since there is no other process that may have possibly added the notion, we conclude that it has been added by the equative derivation which triggers the affixation of *se-* to the verb bases. In this process the derivational feature [equativiser] is involved.

The above derived verbs apparently require the presence of two Objects in their semantic structures as marked underneath sentences (222) to (225). We have already discussed the possibility of two Objects in the semantic structures of certain verbs in Chapter II, sections 2.5. and 2.9. We concluded there that only basic process and action verbs may have two Objects. The above data

show that derived state verbs may also have two Objects. Baer (1973:30) also interprets the English comparative adjectives such as 'better' and 'worse' as having double Objects in their semantic structures.

In addition to (222) to (225), we also have the following data:

- (226) Salim setakut kawan-kawannya akan hantu.
 E V E Os
 Salim as-afraid friend-his of ghost
 Salim is as afraid as his friends of ghosts.
- (227) Toni segembira teman-temannya akan berita itu.
 E V E Os
 Toni as-happy friend-his about news the
 Toni is as happy as his friend about the news.

The basic verbs in these sentences are takut *afraid of* and gembira *happy*. These verbs are state experiential. The prefix *se-* has obviously been added to the verb bases, which results in the verbs *setakut* and *segembira*. We can see from the translations that these derived verbs also convey the notion of equality as in the verbs in (222) to (225). Therefore, we may conclude that this notion has been added by the equative derivation which triggers the affixation of *se-* to the verb bases.

The derived verbs apparently require the presence of two Experiencer cases in their semantic structures. The arguments we put forward to support our decision concerning the presence of double Objects in Chapter II are also applicable in this case. In other words, at least in BI, derived verbs such as those in (226) and (227) have double Experiencer cases in their semantic structures. We may note as well that the Objects are deletable.

Sentences such as (228), for instance, are common:

- (228) Salim setakut kawan-kawannya.
 E V E
 Salim is as afraid as his friends.

Our investigation indicates that equative derivation does not occur with all state verbs. The following sentences, for instance, are anomalous:

- * (229) Toni sepunya Tuti.
 Toni as have Tuti
- * (230) Pak Salim seada pak Siddik.
 Mr Salim as exist Mr Siddik

The basic verbs in (229) and (230) are *punya* and *ada*. The first verb is a state benefactive and the second is a state locative verb. The derived verbs *sepunya* and *seada* do not exist.

We may also note that there are a number of adverbs in BI formed from verbs by the affixation of *se-*. The adverbs *setiba as soon as (one) arrive* and *sepergi as soon as (one) leave*, for instance, are derived from the verbs *tiba arrive* and *pergi leave or go* which are action locative verbs. Such adverbs are generally used in phrases referring to time. It is interesting to note that even in such derived adverbs the notion of equality can still be felt. According to Mees (1954:305), the prefix *se-* was borrowed from Sanskrit. In Sanskrit the prefix is *sa-* which means *one or same*. This diachronic evidence also supports the interpretation of the prefix *se-* presented above. The basic meanings of the Sanskrit prefix seem to have been preserved in the derived words with the prefix *se-* in BI.

On the basis of the above discussion, then, we may draw the following conclusions:

- (1) Equative derivation can occur with basic state and state experiential verbs.
- (2) In this derivational process, the derivational feature [equativiser] is added to the root to derive a state equative or state experiential equative verb.
- (3) The process triggers the affixation of *se-* in the surface structure, and this prefix is the surface marker of the derivational feature [equativiser], and at the same time it marks that the verb is a state equative or a state experiential equative verb.

Two rules of equative derivations, then, may be formulated as follows:

ED Rule 1:

V state	—————>	V state
		equative
root		root + [equativiser]
<hr/>		
verb base		se- + verb base

This ED Rule (Equative Derivation Rule) states that a state equative verb may be optionally derived from a basic state by the addition of the derivational feature [equativiser] to a root. The derivational process triggers the affixation of *se-* in the surface structure.

ED Rule 2:

V state	—————>	V state
experiential		experiential
		equative
root		root + [equativiser]
<hr/>		
verb base		se- + verb base

This rule states that a state experiential equative verb may be optionally derived from a basic state experiential verb by the addition of the derivational feature [equativiser] to the root. The derivational process triggers the affixation of *se-* in the surface structure.

Our investigation indicates that the above two rules have high actual productivity. We did not find any example of potential productivity.

3.4.2. Superlative derivation

As we can see in (219), the notion of comparison of superlativity in BI is marked by the affixation of *ter-* to the verb base and the positioning of *yang* before the verb in the surface structure. Based on these surface phenomena, we come to an hypothesis that there is a derivational process which triggers this affixation and the positioning of *yang*. We propose to call this derivational process 'superlative derivation' in which the derivational feature [superlativiser] is involved.

The following data exemplify the evidence which supports the hypothesis:

- (231) Rudi yang terhitam dari semua saudaranya.

O_s V O_s

Rudi the most-black from all brother-his
Rudi is the darkest of all his brothers.

- (232) Hotel Danau Toba yang terbesar.

O_s V

Hotel lake Toba the most-big
Danau Toba Hotel is the biggest.

- (233) Rini yang tercantik dari semua gadis itu.

O_s V O_s

Rini the most-pretty from all girl the
Rini is the prettiest of all the girls.

- (234) Pertanyaan ini yang tersukar.

O_s V

question this the most-difficult
This question is the most difficult.

The basic verbs in the above sentences are *hitam dark*, *besar big*, *cantik pretty*, and *sukar difficult*. These verbs are states. It is morphologically obvious that the prefix *ter-* has been attached to the verb bases, which result in the verbs *terhitam*, *terbesar*, *tercantik*, and *tersukar*. As we can see from the translations these verbs convey the notion of superlativity. Since there is no other process which can possibly be assumed to have added this notion, we conclude that it has been added by the superlative derivation in which the derivational feature [superlativiser] is added to the root, and the process triggers the affixation of *ter-* in the surface structure.

As in the equative derivation, discussed in 3.4.1., these derived verbs also require two Objects in their semantic structures. Unlike the equative verbs, however, the second Object, which is the one specifying the entity to which the other entity is compared is deletable in the semantic structure of these verbs, as we can see in (232) and (234).

Besides the affixation of *ter-*, there is another phenomenon observable in (231) to (234), that is, the positioning of *yang* immediately before the verbs. The occurrence appears to be simultaneous with the affixation of *ter-*.

The lexical item *yang* is one of the most intricate items to describe due to its various functions which are often hard to distinguish. Mees (1954) and Slametmulyana (1969), for instance, list at least seven different functions of this item. Macdonald (1976:84, 168) describes two basic functions of *yang*, namely, as a nominaliser and as a topic or a subject of a clause comparable to the English relative pronouns 'that', 'which', and 'who'. Our survey of the grammars of BI available to us indicates that the grammarians generally agree as to these two basic functions. Unfortunately, we did not find a specific discussion of the appearance of *yang* immediately before superlative verbs such as those in (231) to (234). In general, the presence of *yang* in this case is considered as having the same function as it has in front of other adjectives or verbs, that is, to nominalise the adjectives or the verbs. Our investigation indicates there seems to be a significant difference between *yang* before a superlative verb and before a simple adjective (verb). For example, we provide the following data:

The basic verbs in the above sentences are *sedih* and *gembira*. These verbs are state experiential. As in (234), the prefix *ter-* has also been attached to these verb bases, which results in the verbs *tersedih* and *tergembira*. As we can see from the translations, these verbs also convey the notion of superlativity. There seems to be no other process that has added this notion but the superlative derivation as in (231) to (234).

Besides the notion of superlativity as marked by *ter-*, we also see *yang* before the superlative verbs, which conveys the notion of definiteness. We also account for this notion as we did in (231) to (234). Furthermore, the derived verbs apparently require two Experiencer cases, but, unlike the state experiential equative verbs we discussed in 3.4.1., the second Experiencer, which is the one specifying the entity to which another entity is compared, is deletable in the semantic structure of these superlative verbs, as we can see in (239):

- (239) Siddik yang tersedih.
 E V
 Siddik is the saddest.

Note that the Objects are also deletable.

Our investigation indicates, however, that sentences such as the following are anomalous:

- * (240) Pak Kadir yang mempunya uang.
 Mr Kadir the have money
 * (241) Orang tuanya yang terada di kamar.
 Person old his the exist in room

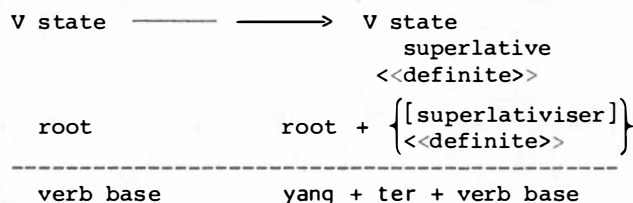
The basic verbs in these sentences are respectively *punya* *have* and *ada* *exist*, which are respectively state benefactive and state locative. On the basis of these facts, as with the equative derivation, we may conclude that superlative derivation does not occur with basic state benefactive and state locative verbs.

From what we discussed above, we can now draw the following conclusions:

- (1) Superlative derivation can occur with basic state and state experiential verbs.
- (2) In this derivational process, the derivational feature [superlativiser] and the inflectional feature <<definite>> are simultaneously added to the root to derive a state superlative or a state experiential superlative verb.
- (3) The process triggers the affixation of *ter-* to the verb base, and the positioning of *yang* immediately before the superlative verb in the surface structure. The prefix *ter-* is the surface marker of the derivational feature [superlativiser], and at the same time it marks that the verb is a state superlative or a state experiential superlative verb; *yang* is the surface marker of the inflectional feature <<definite>>.

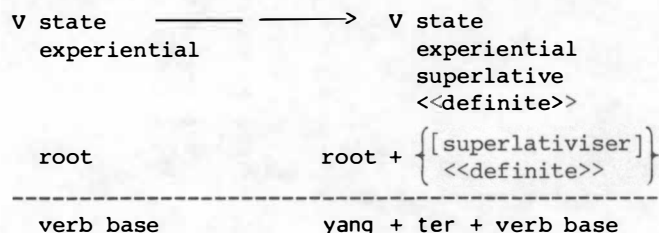
Based on the above conclusions, two rules of superlative derivation may be formulated as follows:

SD Rule 1:



This SD Rule (Superlative Derivation Rule) states that a state superlative verb may be optionally derived from a basic state verb by the addition of the derivational feature [superlativiser] to the root. At the same time the inflectional feature <<definite>> is also added. This derivational process triggers the affixation of ter- and the positioning of yang immediately before the superlative verb in the surface structure.

Rule 2:



This rule states that a state experiential superlative verb may be optionally derived from a basic state experiential verb by the addition of the derivational feature [superlativiser] to the root. At the same time the inflectional feature <<definite>> is also added. This derivational process triggers the affixation of ter- and the positioning of yang immediately before the superlative verb in the surface structure.

Like the equative derivation rules, these two rules are also of high actual productivity. We did not find any example of potential productivity.

3.5. Summary

In the present chapter we have discussed four major semantic derivations in BI, three of which are subdivided further into different kinds. We have shown that in the derivations certain basic verb types are converted into other types by the addition of certain derivational features, and that the derivational processes trigger certain affixations in the surface structure. We have also shown that the constraints on the occurrences of the derivations, which trigger the constraints of the occurrences of the affixations, are essentially statable in terms of the selectional features of the basic verbs. Finally, the syntactic correlates of the affixations have also been described in terms of the case roles which are dependent upon the selectional features of the verbs involved in the derivations. In addition to the major derivations, there are also three minor ones.

The derivational processes we have discussed are summarised in Table 3. Column 1 contains all the derivational processes, column 2 contains the derivational features involved, column 3 contains other features which are simultaneously involved in the processes, column 4 contains the basic verb types, column 5 contains the derived verbs, and, finally, column 6 contains the affixes involved in the affixations which are triggered by the derivational processes.

Table 4: Derivations

	1 Derivational processes	2 Derivational features	3 Other features	4 Basic verb types	5 Derived verbs	6 Affixes
1	Inchoative derivations	inchoative	-	state state (experiential)	process process experiential	meN- ke-an
2	Causative derivations	[inchoative] causative	-	state (experiential) (benefactive) locative	action (experiential) (benefactive) locative	(meN-)-kan
a	kan-causative derivation					
b	i-causative derivation	[inchoative] causative	-	state	action locative	(meN-)-i
c	per-causative derivation	[inchoative] causative	increase	state	action	(meN-)+per-
3	Resultative derivations					
a	ber-resultative derivation	[deactivative] resultative	-	action (benefactive)	state	ber-
b	ter-resultative derivation	[deactivative] resultative	passive	action (experiential) benefactive	state (experiential) benefactive	ter-
4	Comparisons					
a	equative derivation	equativiser	-	state state experiential	state equative state experiential equative	se-

b	superlative derivation	superlativiser	definite	state state experiential	state superlative state superlative state experiential superlative	<u>yang</u> +ter-
5	Benefactive derivation	benefactiviser	-	action	action benefactive	(meN-)-kan
6	Locative derivation	locativiser	-	action	action locative	(meN-)-kan

Notes: (1) the brackets in columns 4 and 5 indicate that the verbs involved are also the secondary verb types enclosed by the brackets.
(2) the prefix meN- between brackets in column 6 means that it is deletable.
(3) yang in column 6 is underlined to indicate that it is not an affix, but obligatorily present.
'Kan-embedded derivation' is not included in this table due to its different nature.

CHAPTER IV

INCORPORATIONS

4.0. PRELIMINARY REMARKS

In Chapter I, section 1.5.4., we proposed to handle the problems of noun-to-verb derivations by means of incorporations. An incorporation is a postsemantic process in which a certain noun representing a case role is incorporated into the verb found in the semantic structure. The result of the process is that the noun appears as a verb having the same selectional features as the verb which is found in the semantic structure.

In English, an incorporation is not marked, or at least not regularly, by an affixation in the surface structure. Thus, the noun 'water', for instance, can be used as a verb in sentences like 'She watered the flowers'. In BI, on the other hand, such a process regularly triggers a certain affixation in the surface structure. In the present chapter we will discuss how the processes occur and what constrain the occurrences.

Although we may classify the incorporational processes on the basis of the case roles involved, we consider that it is more systematically convenient to classify them according to the affixes that are triggered in the surface structure. Each of the sections of this chapter therefore will be entitled in accordance with the affix in question.

4.1. meN- incorporations

These incorporations trigger the affixations of meN- to the noun bases in the surface structure. We provide the following data as examples:

- (242) Wanita itu telah menjanda.
O V
woman the already become-widow
The woman is widowed/has become a widow.
- (243) Martina membabu.
O V
Martina become-servant
Martina became a servant.
- (244) Kadir menyupir.
O V
Kadir become-driver
Kadir became a driver.

- (245) Nurdin sudah melajang.
 O V
 Nurdin already become-bachelor
 Nurdin has become a bachelor.

These sentences are respectively paraphrasable as follows:

- (246) Wanita itu telah menjadi janda.
 O V O₂
 woman the already become widow
 The woman has become a widow.

- (247) Martina menjadi babu.
 O V O₂
 Martina became a servant

- (248) Kadir menjadi supir.
 O V O₂
 Kadir become driver
 Kadir became a driver.

- (249) Nurdin sudah menjadi lajang.
 O V O₂
 Nurdin already become bachelor
 Nurdin has become a bachelor.

The verb in (246) to (249) is *menjadi*. As we can see in the translations, this verb is equivalent to the English verb 'become'. The verb, like the English equivalent, is a process, because it can take the temporal modal *sedang*, but it cannot be used to construct a command imperative sentence. Sentence (250)a, for instance, is acceptable, but not (250)b:

- (250) a Wanita itu sedang menjadi janda.
 O V O₂
 The woman is becoming a widow.
 *b Menjadi!
 Become!

We may recall that in Chapter II, section 2.5., we showed the verb *jadi* had double Objects. Note that the prefix *meN-* added to this basic verb is semantically vacuous, since the verb itself is already a process. The verb *menjadi*, then, is semantically the same as the basic verb *jadi*.

The nouns *janda*, *babu*, *supir*, and *lajang* in (246) to (249) represent the second Objects of the verb *menjadi*. The term 'second' in this case means second in position in the semantic structure. The second Object is not selected as the surface subject. This Object is indicated in the above sentences by the subscript '2'. This conventional symbol will henceforth be used.

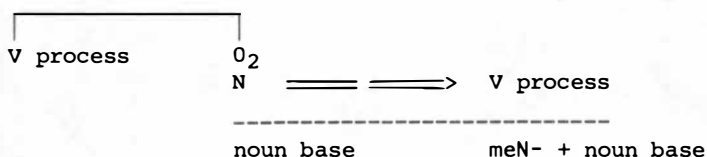
In (242) to (245), the above nouns are incorporationally converted into the verbs *menjanda*, *membabu*, *menyupir*, and *melajang*. These verbs are also processes. They can take the temporal modal *sedang*, but cannot be used to construct command imperative sentences. Obviously, the prefix *meN-* has been attached to the noun bases. The affixations of this prefix appear to be in consistency with the affixations triggered by inchoative derivations we discussed in Chapter III, section 3.1., in that the verbs are processes. Since there is no other process that can possibly be assumed to have triggered the affixations of *meN-* in the above sentences, we may conclude that they have been triggered by *meN-* incorporations.

On the basis of the above description, then, we may draw the following conclusions:

- (1) The noun representing the second Object in the semantic structure of the verb *menjadi* may be incorporationally converted into a process verb.
- (2) The process triggers the affixation of *meN-* in the surface structure.

The first rule of *meN-* incorporation may be formulated:

meN- Incor Rule 1:



Condition: The lexical unit representing the process verb which is found in the semantic structure is *menjadi*.

Our investigation indicates that the above rule has very limited actual productivity. As we can see in (246) to (249), the nouns representing the second Objects generally refer to occupations including statuses with respect to married life. Even within the range of these constraints, however, it seems that not all incorporationally formed verbs are readily acceptable, as in the following sentences:

- ?(251) Toni telah mengguru.
 O V
 Toni already become-teacher.
- ?(252) Tuti sudah mengisteri.
 O V
 Tuti already become-wife.
- ?(253) Pak Halim telah menggubernur.
 O V
 Mr Halim already become-governor.

The verbs *mengguru*, *mengisteri*, and *menggubernur* are incorporationally formed from the nouns *guru teacher*, *isteri wife*, and *gubernur governor*. These verbs are not anomalous, but they are not as yet readily acceptable. Instead of *mengguru* and *menggubernur*, the phrases *menjadi guru* and *menjadi gubernur* are commonly used, and instead of *mengisteri* the phrase *menjadi isteri* or the verb *bersuami* (*have a husband*) is used. Verbs such as those in (251) to (253) can probably be considered as examples of potential productivity of the rule. It is interesting to note, however, that the occupations referred to by the nouns in (240) to (249) are generally considered as socially low, whereas those in (251) to (253) are high or more respected. If this fact can be fully justified, then, we can state the constraints on the occurrences of the above incorporation in a more specific manner. At the present stage, however, we are not in the position to provide adequate data for the justification.

Our investigation indicates further that the above incorporation also extends to a small number of nouns which do not refer to occupations as in (246) to (249). The incorporationally formed verbs, besides being processes, always imply a notion of similarity, as in (254) and (255):

- (254) Nasi itu telah membatu.
 O V
 rice the already become-stone
 The rice has become like a stone.

- (255) Pasir itu membukit.
 O V
 sand the become-hill
 The sand has become like a hill.

The verbs membatu and membukit are incorporationally formed from the nouns batu *stone* and bukit *hill*.

The second type of meN-incorporation is exemplified in the following sentences:

- (256) Perahu itu sedang melaut.
 O V
 boat the going-on to-sea
 The boat is moving to the sea.
- (257) Garuda 855 telah mendarat.
 O V
 Garuda 855 already come-to-land
 Garuda (plane) 855 has landed.
- (258) Semua kendaraan meminggir.
 O V
 all vehicles move-to-side
 All vehicles moved to the side (of the street).
- (259) Roket itu melangit.
 O V
 rocket the move-to-sky
 The rocket moved into the sky.

These sentences are paraphrasable respectively as follows:

- (260) Perahu itu sedang bergerak ke laut.
 O V L
 boat the going-on move to sea
 The boat is moving to the sea.
- (261) Garuda 855 telah tiba di darat.
 O V L
 Garuda 855 already arrive in land
 Garuda 855 has landed.
- (262) Semua kendaraan bergerak ke pinggir.
 O V L
 all vehicle move to side
 All vehicles moved to the side (of the street).
- (263) Roket itu meluncur ke langit.
 O V L
 rocket the move to sky
 The rocket rose into the sky.

The verbs in (260) to (263) are bergerak *move*, tiba *arrive*, and meluncur *slide or move*. These verbs are process locative verbs as we can see from the presence of the Locative and Object cases marked underneath the sentences.

Besides, they are verbs of motion. The nouns *laut sea*, *darat land*, *pinggir side*, and *langit sky* represent the Locative cases. These nouns refer to the terminal locations of the entities specified by the Object nouns.

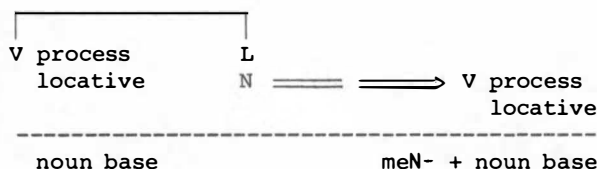
In (256) to (259) the above nouns are incorporationally converted into the verbs *melaut*, *mendarat*, *meminggir*, and *melangit*. These verbs are also process locative verbs, but the Locative cases are totally covert in their semantic structures due to the incorporations. Apparently, the prefix *meN-* has been attached to the noun bases. The affixations of this prefix, as in the first type of *meN-* incorporation, are also consistent with the affixations triggered by inchoative derivations we discussed in 3.1., since all the verbs are processes. Because there is no other process that can be assumed to have triggered the affixations in the above sentences, we may conclude that they have been triggered by *meN-* incorporations.

Using the above description as a basis, we may draw the following conclusions:

- (1) A noun representing the Locative case in the semantic structure of a process locative verb, and referring to a terminal location, may be incorporationally converted into a process locative verb.
- (2) The process triggers the affixation of *meN-* in the surface structure.

The second rule of *meN-* incorporation may be formulated as follows:

meN- Incor Rule 2:



Condition: The Locative noun specifies goals or terminal location.

The above rule, according to our investigation, is of high productivity, both actual and potential. The incorporationally formed verbs in (264) and (265) may be considered as examples of potential productivity:

?(264) Mobil itu menggunung.
 O V
 Car the move-up-to-mountain.

?(265) Truk itu mengota.
 O V
 Truck the move-to-town.

The verbs *menggunung* (264) and *mengota* (265) are incorporationally formed from the nouns *gunung mountain* and *kota town*. These verbs, particularly that in (265), are still strange to the ears of Indonesian speakers, though they are not at all anomalous.

We have to note also that verbs of motion such as those in (256) to (259) may have Agents which are realised as surface subjects. In this case, the Agents are coreferential with the Objects. The verbs therefore become action locative verbs, as in (266) to (267):

- (266) Semua orang meminggir ketika jenderal itu lewat.
 A = O V Time
all people move-to-side when general the pass
All the people moved to the side (of the street) when the general
was passing.
- (267) Pasukan musuh sudah mendarat.
 A = O V
troop enemy already come-to-land
The enemy's troops have landed.

The above phenomenon is explained by the fact that the process locative verbs in (260) to (263) can also be interpreted as action locative verbs as we discussed in Chapter II, sections 2.8. and 2.12. Owing to this phenomenon, meN-Incor Rule 2 may be modified to the effect that if the verb is interpreted as an action locative, then, the incorporationally formed verb is also an action locative.

The third type of meN-incorporation is observable in the following sentences:

- (268) Ibu sedang menyayur.
 A V
mother going-on cook-vegetable
Mother is cooking vegetables.
- (269) Ati sedang menggulai.
 A V
Ati going-on make-curry
Ati is making curry.
- (270) Tina mengolak.
 A V
Tina make sweet-stew
Tina made sweet stew.
- (271) Seniman itu mematung.
 A V
artist the make-statue
The artist made a statue.

The above sentences are paraphrasable respectively as follows:

- (272) Ibu sedang memasak sayur.
 A V O
mother going-on cook vegetable
Mother is cooking vegetables.
- (273) Ati sedang memasak gulai.
 A V O
Ati going-on cook curry
Ati is cooking curry.
- (274) Tina memasak kolak.
 A V O
Tina make sweet-stew
Tina made sweet stew.
- (275) Seniman itu membuat patung.
 A V O
artist the make statue
The artist made a statue.

The verbs in (272) to (275) are *memasak* *cook* and *membuat* *make or create*. These verbs are action verbs.

The nouns representing the Objects are *sayur* *vegetable*, *gulai* *curry*, *kolak* *sweet stew*, and *patung* *statue*. In (268) to (271), these nouns are incorporationally converted into the verbs *menyayur*, *menggulai*, *mengolak*, and *mematung*. These verbs are also action verbs. The Objects become totally covert due to the incorporations. The prefix *meN-* has apparently been attached to the noun bases. Since there is no other process that can be possibly assumed to have triggered the affixations, we may conclude that they have been triggered by *meN-* incorporations.

The affixations of *meN-* in (268) to (271) do not seem to be consistent with the affixations triggered by inchoative derivations, since the verbs are action verbs. However, such affixations can probably be explained, if we consider the Objects represented by the incorporated nouns. That is to say, the Objects become completely covert, therefore, it is impossible that the affixations of *-kan*, *-i*, or *per-* are triggered, since these affixations result in action verbs with totally overt Objects. Thus, it is only the affixations of *meN-* that suit such incorporations.

As we can see in (272) to (275), the verbs are verbs of creativity. The noun representing the Object of a verb of creativity refers to the result or product of the action. Traditionally, the object of a verb of creativity is called effectum object (Fillmore 1968:4). We assume that the third type of *meN-* incorporation can occur only to nouns representing the Objects of verbs of creativity. This assumption is justified by the following facts:

(276) Tuti makan nasi.

A V O
Tuti ate rice.

(277) Siddik membunuh ular.

A V O
Siddik killed a snake.

The verbs *makan* and *membunuh* are action verbs, but not actions of creativity. The object nouns *nasi* and *ular* cannot be incorporationally converted into verbs as in (268) to (271), since the following sentences are not acceptable:

*(278) Tuti menasi.
Tuti rice.

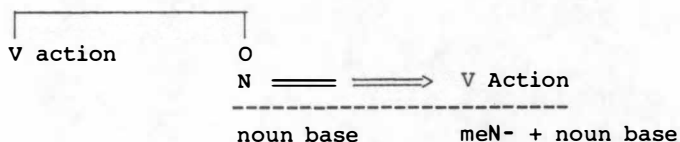
*(279) Siddik mengular.
Siddik snake.

On the basis of the above description, we may draw the following conclusions:

- (1) A noun representing the Object case in the semantic structure of an action verb of creativity may be incorporationally converted into an action verb.
- (2) The process triggers the affixation of *meN-* in the surface structure.

The third rule of *meN-* incorporation may be formulated as follows:

meN- Incor Rule 3:



Condition: The action verb which is found in the semantic structure is a verb of creativity.

Our investigation indicates that the actual productivity of the above rule is very limited. As can be seen in (272) to (275), the verbs of creativity are only those related to cookery and artistic creations. Even within the range of these constraints, however, there seems to be still a considerable number of nouns that cannot be converted into verbs.

The object nouns in (280) and (281), for instance, cannot be incorporationally converted into verbs, since sentences (282) and (283) in which the object nouns are found as verbs are unacceptable:

(280) Tina memasak kue.
 A V O
 Tina made (cooked) cake.

(281) Siddik membangun rumah.
 A V O
 Siddik built a house.

* (282) Tina mengue.
 Tina cake

* (283) Siddik merumah.
 Siddik house

The verbs mengue and merumah can probably be considered as examples of potential productivity, since their formulations do not violate the above rule, and intuitively we can still feel some sense in them.

The fourth type of meN-incorporation is exemplified in the following sentences:

(284) Pak Sudin menggergaji papan itu.
 A V O
 father Sudin saw board the
 Mr Sudin sawed the board.

(285) Ali membor tiang itu.
 A V O
 Ali drilled pillar the
 Ali drilled the pillar.

(286) Toni mengikir cangkul.
 A V O
 Toni file hoe
 Toni filed the hoe.

(287) Sudin mengetam papan itu.
 A V O
 Sudin plane board
 Sudin planed the board.

The above sentences are respectively paraphrasable as follows:

- (288) Pak Sudin memotong papan itu dengan gergaji.

A V O I
father Sudin cut board the with saw
Mr Sudin cut the board with a saw.

- (289) Ali melobangi tiang itu dengan bor.

A V O I
Ali make-hole pillar the with drill
Ali bored the pillar (with a drill).

- (290) Toni menajamkan cangkul dengan kikir.

A V O I
Toni sharpen hoe with file
Toni sharpened the hoe with a file.

- (291) Sudin meratakan papan itu dengan ketam.

A V O I
Sudin smooth board the with plane
Sudin smoothed the board with a plane.

In (288) to (291), the nouns *gergaji*, *bor*, *kikir*, and *ketam* represent the Instrument cases which are modal cases as we decided in Chapter I, section 1.4.7. The verbs are *memotong*, *melobangi*, *menajamkan*, and *meratakan*. These verbs are action verbs.

In (284) to (287) the above nouns are incorporationally converted into the verbs *menggergaji*, *membor*, *mengikir*, and *mengetam* which are also action verbs. The prefix *meN-* has been attached to the noun bases. The prefix, however, seems to be not triggered by the incorporations since the nouns themselves can also be used as verbs, as we can see in (292):

- (292) a Pak Sudin gergaji papan itu.

A V O
Mr Sudin sawed the board.

- b Gergaji papan itu!

V O
Saw the board!

We are not quite certain at present about the reason why the affixations of *meN-* to the instrumental noun bases are not triggered by the incorporations. We assume, however, that it is due to the fact that the nouns represent Instrumental cases which may optionally accompany action verbs, as we discussed in Chapter I, section 1.4.7. This assumption appears to be justified by the fact that in the previous *meN-* incorporations, the nouns which are incorporationally converted into verbs always represent propositional cases, and the incorporations always trigger the affixations of *meN-* in the surface structure. In other words, the prefix *meN-* is obligatorily attached to the noun bases. The second justification may be seen in the obligatory realisation of the Objects in the surface structures of (284) to (287). In the previous *meN-* incorporations, in which *meN-* is obligatorily attached to the noun bases, the Objects are totally covert and, as we mentioned in the discussions, this is consistent with the basic semantic characteristic of the prefix *meN-*. That is to say, that *meN-* is basically only triggered by inchoative derivation which results in one-place verb. On the other hand, as we can see in (284) to (287), the Objects are totally overt, and this seems to be possible because the prefix *meN-* is not triggered by the incorporation.

The fact that the attachment of meN- to the instrumental noun bases is not triggered by the incorporation as we discussed above as against the obligatory attachment of the prefix to the nouns representing the propositional cases as we discussed previously supports our decision to hold the view that the Instrument case is a modal case.

Further observation indicates that the instrumental nouns which can be incorporationally converted into verbs generally refer to tools used in construction, mechanical, or carpentry work. This limitation is obvious from the fact that the instrumental nouns in (293) and (294) for instance, cannot be incorporationally converted into verbs, since sentences (295) and (296), in which the nouns appear as verbs, are not acceptable:

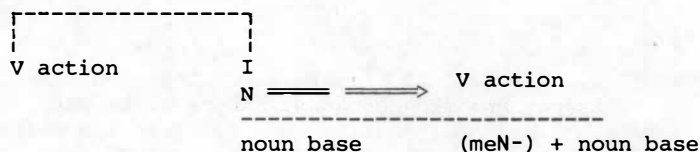
- (293) Toni membunuh ular dengan tongkat.
 A V O I
 Toni killed a snake with a stick.
- (294) Sudin membungkus kue itu dengan kertas.
 A V O I
 Sudin wrap-up cake the with paper
 Sudin wrapped up the cake with a sheet of paper.
- *(295) Toni menongkat ular.
 Toni stick snake
- *(296) Sudin mengertas kue itu.
 Sudin paper cake the

On the basis of what we discussed above, we may draw the following conclusions:

- (1) A noun representing the Instrument case in the semantic structure of an action verb may be incorporationally converted into an action verb. The instrumental noun generally refers to a tool used in construction, mechanics, or carpentry.
- (2) The process does not trigger the affixation of meN- in the surface structure, though the prefix may be present.

The fourth rule of meN-incorporation may be formulated as follows:

meN- Incor Rule 4:



Condition: The instrumental noun generally refers to a tool used in construction, mechanics, or carpentry.

Note that the dotted lines connecting the verb and the Instrument in the semantic structure indicate that the case is a modal case. Furthermore, we place the prefix meN- between parentheses to indicate that its attachment to the noun base is not triggered by the incorporation.

The above rule may be considered as having high actual productivity. We have not come across any examples of potential productivity.

^V ^L
Paint the walls of the house!

The above nouns and the instrumental nouns involved in the fourth type of meN- incorporation, then, have similar characteristics. This similarity is even more evident from the fact that sentences (301) to (304) can also be paraphrased using the instrumental preposition *dengan* *with*, though of course not all are common. Sentences (301) to (304), for instance, may also be paraphrased as follows:

- (306) Pak Burhan melapisi dinding rumahnya dengan cat.
 A V O I
 father Burhan put-layer-on wall house-his with paint
 Mr Burhan covered the walls of his house with paint.
- (307) Halim membersihkan badannya dengan sabun.
 A V O I
 Halim clean body-his with soap
 Halim cleaned his body with soap.

The above similarity justifies our assumption that the affixations of meN- in (297) to (300) are not triggered by the incorporations. We should note, however, that the difference between the above incorporation and the fourth type is that in the above incorporation the verbs are action locative verbs, while in the fourth type the verbs are action verbs. We should also note that in (297) to (300) lexicalisations of direction of motion as we discussed in Chapter III, section 3.2.2., also occur. Therefore, in these sentences the Locative cases are realised as the surface direct objects.

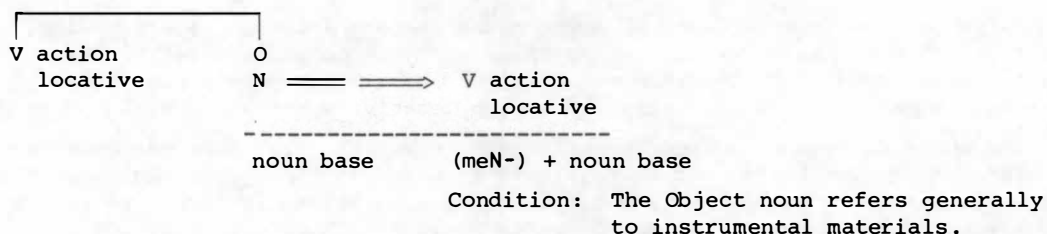
It is interesting to note that most of the nouns representing the Object cases in the semantic structures of the verbs in (301) to (304) generally refer to materials rather than tools. This characteristic may be considered as a reason for distinguishing between tool and material Instruments as Lambert (1969:131) proposes, which further supports the assumption we made above about the similarity of the fourth and the fifth type of meN- incorporation.

Based on the above description, then, we may draw the following conclusions:

- (1) A noun representing the Object case in the semantic structure of an action locative verb may be incorporationally converted into an action locative verb. The Object noun generally refers to instrumental material.
- (2) The process does not trigger the affixation of meN- in the surface structure, though the prefix may be present.

The fifth rule of meN- incorporation may be formulated as follows:

meN- Incor Rule 5:



As meN- Incor Rule 4, this rule has also high actual productivity. We have not found any example of potential productivity.

4.2. Kan- incorporations

These incorporations trigger the affixations of -kan in the surface structure. Let us observe the following data:

- (308) Toni mengandangkan kambingnya.
 A V O
Toni put-into-stable goat-his
Toni put his goat into the stable.
- (309) Penguasa memenjarakan penjahat itu.
 A V O
authority put-into-prison criminal the
The authority imprisoned the criminal.
- (310) Pak Burhan mengemukakan pendapatnya.
 A V O
father Burhan put-to-front opinion-his
Mr Burhan put his opinion forward.
- (311) Nelayan itu menghilirkan sampannya.
 A V O
fisherman the move-downstream boat-his
The fisherman moved his boat downstream.

The above sentences are paraphrasable respectively as follows:

- (312) Toni memasukkan kambingnya ke kandang.
 A V O L
Toni put-into goat-his to stable
Toni put his goat into the stable.
- (313) Penguasa memasukkan penjahat itu ke penjara.
 A V O L
authority put-into criminal the to prison
The authority put the criminal into prison.
- (314) Pak Burhan menyampaikan pendapatnya ke muka.
 A V O L
father Burhan pass opinion-his to front
Mr Burhan put his opinion forward.
- (315) Nelayan itu menggerakkan perahunya ke hilir.
 A V O L
fisherman the move boat-his to downstream
The fisherman moved his boat downstream.

As we can see in (312) to (315), the nouns kandang *stable*, penjara *prison*, muka *front or face*, and hilir *downstream* represent the Locative cases in the semantic structures of the verbs memasukkan *put into*, menyampaikan *put forward*, and menggerakkan *move*. These verbs are action locative verbs.

The above nouns are incorporationally converted into the verbs mengandangkan, memenjarakan, mengemukakan, and menghilirkan in (308) to (311). To the nouns the affixes (meN-)-kan have been attached. These incorporationally formed verbs are also action locative verbs, but the Locative cases have become totally covert due to the incorporations. We may conclude that the incorporations have triggered the affixations of (meN-)-kan. The prefix meN-, however, is deletable, since (316)a and b are acceptable:

- (316) a Toni kandangkan kambingnya.
 A V O
 Toni put his goat into the stable.
- b Kandangkan kambing itu!
 V O
 Put the goat into the stable!

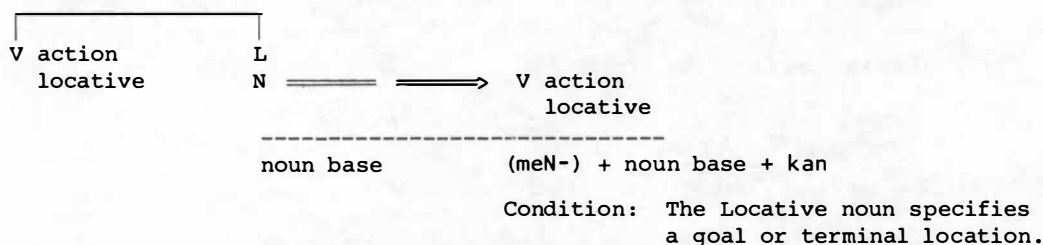
Besides the fact that the verbs in (312) to (315) are action locative verbs, we also observe that the nouns representing the Locative nouns generally refer to terminal places or locations. This phenomenon seems to be a significant constraint on the occurrence of the incorporation.

The following conclusions, then, can be drawn from the above description:

- (1) A noun representing a Locative case in the semantic structure of an action locative verb may be incorporationally converted into an action locative verb. The Locative noun generally refers to a terminal location or goal, and the verb implies motion.
- (2) This process triggers the affixation of (meN-)-kan in the surface structure.

The first rule of kan- incorporation may be formulated as follows:

Kan- Incor Rule 1:



As kan- causative derivation, our investigation indicates that this rule has high actual as well as potential productivity. Other examples of verbs generated by the rule are *mendaratkan* *bring to land*, *mengetengahkan* *put into the middle*, *membukukan* *put into a book*, *meminggirkan* *move to the side (of the street)*, *mengotakkan* *put into a box*, *mengantongkan* *put into the pocket*, and *mengamarkan* *put into the room*. Some examples of potential productivity are *memerutkan* *put into the stomach*, *menggunungkan* *move to the mountain*, and *melantaikan* *put or move to the floor*. These verbs are not yet common, but not at all anomalous. There is high probability that they will appear in common use. It is also interesting to note that it may occur that a potential verb appears to be used metaphorically. The verb *merumahkan*, which is incorporationally formed from the noun *rumah* *house*, is one example. The verb has been in common use only recently, and it does not convey the literal meaning *to put or place into a house* but it means *to make (someone) retire before it is actually due*. A phenomenon such as this also indicates the significance of taking the notion of potential productivity into account in a grammar.

The second type of kan- incorporation is exemplified in the following data:

- (317) Pak Tahir menguangkan cek itu.
 A V O
 father Tahir make-money cheque the
 Mr Tahir cashed the cheque.

- (318) Rakyat negeri itu merajakan seorang pemuda.
 A V O
people country the make-king a-person young-man
The people of the country made a young man king.
- (319) Mereka mengorbankan seekor¹¹ kerbau.
 A V O
they make-sacrifice a-tail buffalo
They sacrificed a buffalo.
- (320) Pak Salim menggadaikan rumahnya.
 A V O
father Salim make-mortgage house-his
Mr Salim mortgaged his house.

The above sentences are respectively paraphrasable as follows:

- (321) Pak Tahir menjadikan cek itu uang.
 A V O₁ O₂
father Tahir make cheque the money
Mr Tahir cashed the cheque.
- (322) Rakyat negeri itu memilih seorang pemuda raja.
 A V O₁ O₂
people country the elect a-person young-man king
The people of the country made a young man king.
- (323) Mereka menjadikan seekor kerbau korban.
 A V O₁ O₂
they make a-tail buffalo sacrifice
They sacrificed a buffalo.
- (324) Pak Salim menjadikan rumahnya gadai.
 A V O₁ O₂
father Salim make house-his mortgage
Mr Salim mortgaged his house.

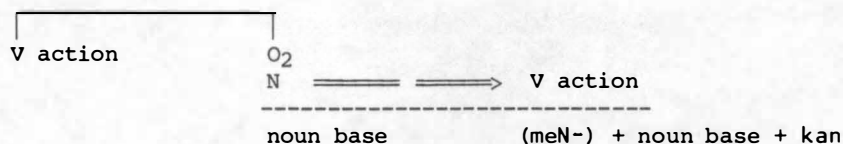
The verbs in (321) to (324) are menjadikan and memilih. These verbs are action verbs which have double Objects in their semantic structures (see Chapter III, sections 2.3. and 2.9.). In the above sentences we mark the two Objects O₁ and O₂. The nouns representing O₂, which are uang, raja, korban, and gadai, are incorporationally converted into the verbs menguangkan, merajakan, menggadaikan in (317) to (320). These verbs are also action verbs. The affixes (meN-)-kan have been attached to the noun bases. As in the first type of kan- incorporation, in this incorporation only (meN-)-kan is triggered but meN- is deletable, since the verbs can also be used without the prefix. In the semantic structures of the incorporationally formed verbs the second Objects (O₂) are completely covert due to the incorporations.

The following conclusions can be drawn from the above description:

- (1) A noun representing the second Object (O₂) of an action verb with double Objects in its semantic structure may be incorporationally converted into an action verb.
- (2) The process triggers the affixation of (meN-)-kan in the surface structure.

The second rule of kan- incorporation may be formulated as follows:

Kan- Incor Rule 2:



Condition: The verb which is found in the semantic structure has double Objects.

From the constraint stated in conclusion (1) above, it can be seen that the actual productivity of the rule is very limited. In addition, it is also significant to note that the second Object (O₂) cannot be selected as the surface subject of a passive construction. Sentence (325), for instance is not acceptable:

- * (325) Uang dijadikan cek itu oleh Pak Tahir.
Money be-made cheque the by Mr Tahir.

Other examples of the verbs generated by the rule are mengemaskan *make (change into) gold*, menyelimutkan *make blanket*, and mendewakan *make, admire, or worship as god*. Though the verbs merajakan and meratukan *make queen* are common, the verbs menggubernurkan *make governor*, mempresidenkan *make president*, menjenderalkan *make general*, mendirekturkan *make director*, and many others which are incorporationally formed from nouns referring to official positions or occupations are not acceptable, or at least not yet in common use. They may be considered as examples of potential productivity.

Finally, we may also note that the affixations of (meN-)-kan triggered by the two types of kan- incorporation we discussed above are apparently consistent with the affixations of (meN-)-kan triggered by kan- causative derivations.

4.3. I- incorporations

These incorporations trigger the affixations of -i in the surface structure. The process is exemplified in the following sentences:

- (326) Sani menyampuli bukunya.
 A V L
Sani put-cover-on book-his
Sani covered his book.
- (327) Tuti menggarami sup itu.
 A V L
Tuti put-salt-into soup the
Tuti put salt into the soup.
- (328) Mereka membatui jalan itu.
 A V L
they arrange-stone-on road the
They arranged stones on the road.
- (329) Pak Salim mengairi sawahnya.
 A V L
father Salim put-water-onto rice-field-his
Mr Salim put water onto his rice-field.

These sentences are paraphrasable respectively as follows:

- (330) Sani memasang sampul pada bukunya.
 A V O L
Sani put (fix) cover on book-his
Sani covered his book.
- (331) Tuti menaruh garam ke dalam sup itu.
 A V O L
Tuti put salt into soup the
Tuti put salt into the soup.
- (332) Mereka menyusun batu pada jalan itu.
 A V O L
they arrange stone on road the
They arranged stones on the road.
- (333) Pak Salim memasukkan air ke dalam sawahnya.
 A V O L
father Salim put water onto rice-field-his
Mr Salim put water onto his rice-field.

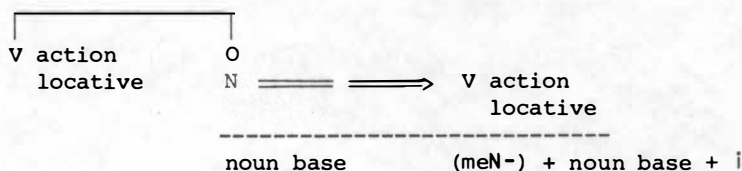
In (330) to (333), the nouns sampul, garam, air, and batu, represent the Objects in the semantic structures of the verbs memasang, menaruh, memasukkan, and menyusun. These verbs are action locative verbs. The nouns are incorporationally converted into the verbs menyampuli, menggarami, mengairi, and membatui in (326) to (329). These verbs are also action locative verbs, but the Objects in their semantic structures are totally covert due to the incorporations. The affixes (meN-)-i are obviously attached to the noun bases. Note, however, that (meN-) is deletable.

As indicated in the English translations, the notion of direction of motion is also incorporated into the verbs. This is evident from the fact that the directional prepositions are not present before the nouns representing the Locative cases in (326) to (329). We may recall that in i- causative derivations we discussed in Chapter III, section 3.2.2., a similar phenomenon was found. Because of the incorporations or lexicalisations of the notions of direction of motion indicated by the prepositions, the Locative cases are realised as surface direction objects. The affixations of (meN-)-i triggered by the above incorporations, therefore, are consistent with those triggered by i- causative derivations. It should also be noted that the Locative nouns refer to goal or terminal locations as can be seen from the prepositions.

Based on the above description, we can draw the following conclusions:

- (1) A noun representing the Object in the semantic structure of an action locative verb may be incorporationally converted into an action locative verb. The notion of direction of motion is also incorporated into the newly formed verb. The Locative noun refers to a terminal location.
 - (2) The process triggers the affixation of (meN-)-i in the surface structure.
- The first rule of i- incorporation may be formulated as follows:

I- Incor Rule 1:



- Conditions:
- (1) The notion of direction of motion is incorporated.
 - (2) The Locative noun refers to a goal or terminal location.

As indicated in conclusion (1) above, the nouns that may involve in the incorporational process refer to a vast range of objects. It therefore seems to be impossible to state a constraint with respect to the semantic characteristics of such nouns. One phenomenon, however, might be significant, that is, there has to be some kind of fitness between the objects or things referred to by the nouns and the entities specified by the Locative cases. Thus, sentence (334), for instance, is anomalous due to the absence of such a fitness:

- (334) Toni memanggai dinding.
 Toni mango wall.

There is no sense in putting mangoes on the wall. This is what we mean by 'fitness', that is, empirical fitness. Though there seems to be many examples of potential productivity, it may be considered that this rule has high actual productivity since there are a vast number of nouns that can be converted.

It is also important to note that the above rule is similar to meN- Incor Rule 5 in that the verbs involved are action locative verbs and the incorporated nouns represent the Objects. The significant difference is that the Object nouns involved in meN- Incor Rule 5 can be incorporationally converted into verbs without triggering any affixation. We are not able to provide the reason for this difference at present, but it may reside in the semantic characteristics of the nouns.

The second type of i- incorporation is observable in the following sentences:

- (335) Ibu menyisiki ikan itu.
 A V L
 mother remove-scale fish the
 Mother scaled the fish.
- (336) Tuti membului ayam itu.
 A V L
 Tuti remove-feather chicken the
 Tuti plucked the chicken.
- (337) Pak Sani sedang menguliti kambing.
 A V L
 father Sani going-on remove-skin goat
 Mr Sani is skinning the goat.
- (338) Monyet itu mengutui temannya.
 A V L
 monkey the pick-up-lice friend-its
 The monkey picked the lice from its friend's body.

The above sentences are respectively paraphrasable as follows:

- (339) Ibu membuang sisik dari badan ikan itu.
 A V O L
 mother remove scale from body fish the
 Mother scaled the fish.
- (340) Tuti mencabut bulu dari badan ayam itu.
 A V O L
 Tuti pluck feather from body chicken the
 Tuti plucked the feathers from the chicken's body.
- (341) Pak Sani mengambil kulit dari badan kambing itu.
 A V O L
 father Sani take skin from body goat the
 Mr Sani skinned the goat.
- (342) Monyet itu memungut kutu dari badan temannya.
 A V O L
 monkey the pick louse from body friend-its
 The monkey picked the lice from its friend's body.

In (339) to (342) the nouns *sisik*, *bulu*, *kulit*, and *kutu* represent the Objects in the semantic structures of the verbs *membuang*, *mencabut*, *mengambil*, and *memungut*. These verbs are action locative verbs.

The above nouns are incorporationally converted into the verbs *menyisiki*, *membului*, *menguliti*, and *mengutui* in (335) to (338). These verbs are also covert due to the incorporations. The notion of direction of motion is also involved in the incorporations as can be seen from the absence of the prepositions in (335) to (338). The affixes (meN-)-i are attached to the noun bases. As in the first type of i- incorporation, the prefix (meN-) in (335) to (338) is again deletable. The verbs can be used without this prefix.

Despite the fact that the verbs involved in this incorporation and those in (321) to (333) are similar in terms of the cases in their semantic structures, there is a significant difference. The Locative cases in (330) to (333) are represented by nouns that refer to terminal locations, whereas the Locative cases in (339) to (342) are represented by nouns that refer to source or starting locations. The difference is indicated by the prepositions *ke to* or *ke dalam into* and *dari from*.

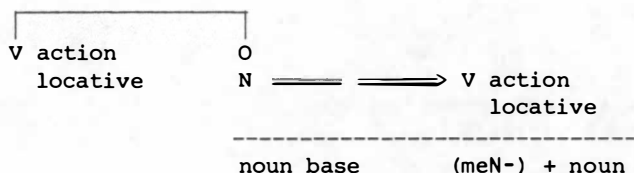
It is significant to note that the nouns representing the Objects in (339) to (342) are generally those that refer to objects, animate or inanimate, which can be removed from certain places. Often they are inalienable possessions, as in (339) to (341), or unwanted objects as in (342). The notions of 'removable' and 'unwanted' with respect to the places or locations seem to be among the significant features of such nouns.

We may draw, then, the following conclusions from the above description:

- (1) A noun representing a Locative case in the semantic structure of an action locative verb may be incorporationally converted into an action locative verb. The Locative noun refers to a source or starting location. The notion of direction of motion is also incorporated. The Object noun refers to a removable inalienable possession of the entity specified by the locative noun.
- (2) The process triggers the affixation of (meN-)-i in the surface structure.

The second rule of i- incorporation may be formulated as follows:

I- Incor Rule 2:



- Conditions:
- (1) The Locative noun refers to a source or starting location.
 - (2) The notion of direction of motion is also incorporated.
 - (3) The Object noun refers to a removable inalienable possession of the entity specified by the Locative noun.

Despite the constraints stated in conclusion (1) above, there are still a considerable number of nouns which appear to be not readily converted into verbs by the rule. Incorporationally formed verbs such as those in (343) to (344) are not acceptable:

- *(343) Mereka memohoni hutan itu.
They remove tree wood the.
- *(344) Pak Tahir memobili tempat parkir.
Father Tahir remove car place parking.

The verbs *memohoni* and *memobili* are incorporationally formed from the nouns *pohon tree* and *mobil car*. The nouns *hutan forest* and *tempat parkir parking place* represent the Locative cases. Though it is empirically possible that the trees and the cars are not wanted in the places and they are removable, the incorporationally formed verbs are not acceptable, at least not yet. We may therefore consider such verbs as examples of potential productivity. It seems that the above rule has limited actual productivity.

Finally we may as well note that, as in the first type of i- incorporation in the above incorporations too, the affixations of (meN-)-i are consistent with those triggered by i- causative derivations, since the verbs are all action locative verbs.

4.4. Per- incorporation

This incorporation triggers the affixation of *per-* in the surface structure. Let us observe the following sentences:

- (345) Toni memperselimut spreii.
 A V O₁
Toni already-make-one's-blanket sheet
Toni already made a sheet his blanket.

- (346) Mereka memperdewa patung.
 A V O₁
they already-make-one's-god statue
They already made a statue their god.
- (347) Salim memperisteri seorang janda.
 A V O₁
Salim already-make-one's-wife a-person widow
Salim already made a widow his wife.
- (348) Sudin memperbantal tikar.
 A V O₁
Sudin already-make-one's-pillow mat
Sudin already made a mat his pillow.

These sentences are paraphrasable respectively as follows:

- (349) Toni sudah membuat spreii selimutnya.
 A V O₁ O₂
Toni already make sheet blanket-his
Toni already made a sheet his blanket.
- (350) Mereka sudah menjadikan patung dewa mereka.
 A V O₁ O₂
they already make statue god they
They already made a statue their god.
- (351) Salim sudah menjadikan seorang janda isterinya.
 A V O₁ O₂
Salim already make a-person widow wife-his
Salim already made a widow his wife.
- (352) Sudin sudah membuat tikar bantalnya.
 A V O₁ O₂
Sudin already make mat pillow-his
Sudin already made a mat his pillow.

The verbs in the above sentences are *membuat* and *menjadikan*. These verbs are action verbs that have double Objects in their semantic structures as we also found in the second type of *kan-* incorporation. We also mark the Objects as O₁ and O₂. The nouns *selimut blanket*, *dewa god*, *isteri wife*, and *bantal pillow* represent the second Objects (O₂). These nouns are incorporationally converted into the verbs *memperselimut*, *memperdewa*, *memperisteri*, and *memperbantal* in (345) to (348). These verbs are also action verbs. Due to the incorporations the second Objects are totally covert. The affixes (meN-)+ *per-* are attached to the noun bases. As in *kan-* incorporation, (meN-) is again deletable, since the verbs can also be used without the prefix.

Besides the nouns representing the second Objects, however, there appear to be other elements which are incorporated simultaneously. As we can see in the translations, the incorporationally formed verbs convey also the meanings that the actions have been completed as indicated by the temporal modal *sudah already*, and that the results of the actions are for the agents themselves as indicated by the suffix *-nya* which is the possessive form of the singular third personal pronoun, and *mereka their* in the possessive function as in (350). Thus, there seems to be a reflexive as well as benefactive notion involved in the incorporations. This phenomenon seems to be similar to what Lyons (1971:374) observes in Greek with respect to the middle voice. He indicates that one implication of the use of the middle voice is that the action is performed by

the agent for his own benefit or interest. He therefore considers that middle voice involved the notion of reflexivity which may also be described as benefactive.

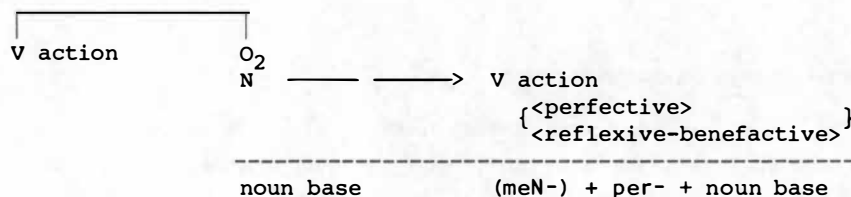
In order to account for the notions described above, though it may be rather clumsy and unsatisfactory, we would like to propose that the inflectional feature <perfective> and a special type of inflectional feature <reflexive-benefactive> are simultaneously added to the noun bases. As we have just pointed out, this does not seem to be the best solution. However, it at least suits the purpose of the present study.

On the basis of the above description we may draw the following conclusions:

- (1) A noun representing the second Object (O_2) of an action verb with double Objects in its semantic structure may be incorporationally converted into an action verb.
- (2) In the process the inflectional features <perfective> and <reflexive-benefactive> are simultaneously added to the incorporationally formed verb.
- (3) The process triggers the affixation of (meN-) + per- in the surface structure.

The rule of per- incorporation may be formulated as follows:

Per- Incor Rule:



Condition: The verb which is found in
the semantic structure has
double Objects.

The above rule appears to be of high actual productivity. Though it is difficult to determine the characteristics of the two types of nouns representing the two Objects, one phenomenon seems to be certain, that is, the nouns representing O_1 generally refer to entities or objects useful for the agents.

In the grammars of BI available to us the distinction between the prefix per- and the suffix -kan is generally not made clear. It is even sometimes indicated that the two affixes designate the same meaning. As we have just shown, the difference lies in the involvement of the simultaneous inflectional features in the incorporational process triggering the affixation of (meN-) + per-.

4.5. Ber- incorporations

These incorporations trigger the affixations of ber- in the surface structure. Let us observe the following sentences:

- (353) Pak Burhan beruang.
 B V
 father Burhan have-money
 Mr Burhan has money.

- (354) Salim bermobil.
 B V
 Salim have-car
 Salim has a car.
- (355) Toni beristeri.
 B V
 Toni have-wife
 Toni has a wife.
- (356) Pak Sudin berdagang.
 B V
 father Sudin have-business
 Mr Sudin has a business.

The above sentences are respectively paraphrasable as follows:

- (357) Pak Burhan punya uang.
 B V O_s
 Mr Burhan has money.
- (358) Salim punya mobil.
 B V O_s
 Salim has a car.
- (359) Toni punya isteri.
 B V O_s
 Toni has a wife.
- (360) Pak Sudin punya (usaha) dagang.
 B V O_s
 Mr Sudin has a business (enterprise).

There is only one verb in (357) to (360), that is, *punya* *have, own, be in possession*. This verb is a state benefactive. The nouns *uang*, *mobil*, *isteri* and *dagang*, represent the Objects in the semantic structure of the verb. These nouns are incorporationally converted into the verbs *beruang*, *bermobil*, *beristeri* and *berdagang*, in (353) to (356). These verbs are also state benefactive verbs, but the Objects are completely covert due to the incorporations. The prefix *ber-* is attached to the noun bases. The incorporations have obviously triggered the affixations. These affixations appear to be consistent with the affixations of *ber-* triggered by resultative derivations as we discussed in Chapter III, section 3.3.1., since the verbs are all states.

We may note that the nouns representing the Objects in the semantic structure of the verb *punya* in the above examples refer to alienable possessions. However, the nouns may also refer to inalienable possessions as in (361) and (362):

- (361) Manusia bertangan.
 B V
 Man has hands.
- (362) Kursi berkaki.
 B
 A chair has legs.

The verbs *bertangan* and *berkaki* are incorporationally formed from the nouns *tangan* *hand* and *kaki* *leg* in sentences (363) and (364) respectively:

- (363) Manusia mempunyai tangan.
 B V O
 Man has hands.

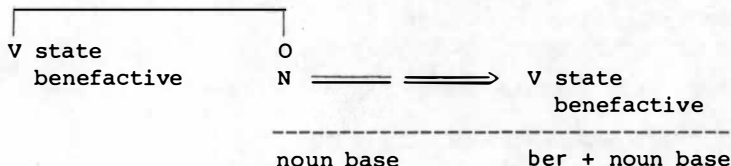
- (364) Kursi mempunyai kaki.
 B V O
 A chair has legs.

On the basis of the above descriptions, we may draw the following conclusions:

- (1) A noun representing an Object in the semantic structure of a state benefactive verb may be incorporationally converted into a state benefactive verb.
- (2) The process triggers the affixation of ber- in the surface structure.

The first rule of the ber- incorporations may be formulated as follows:

Ber- Incor Rule 1:



Since the nouns representing the Objects in the above incorporations refer to a wide range of objects or things, both alienable as well as inalienable possessions, the rule has high actual productivity. It is obvious, of course, that empirical fitness is another significant constraint on the occurrences of the incorporations. It is nonsensical, for instance, to say that a house has a car, since 'car' in such a sentence does not refer either to alienable or inalienable possession with respect to the 'house'. Thus, in BI, too, sentences such as (365) are anomalous:

- *(365) Rumah itu bermobil.
 House the have-car.

The second type of ber- incorporation is exemplified in the following sentences:

- (366) Toni bersepeda ke sekolah.
 A=O V L
 Toni by-bicycle to school
 Toni goes to school by bicycle.
- (367) Orang kampung itu berkuda ke pekan.
 A = O V L
 people village the by horse to market
 The villagers go to the market on horseback/by horse.
- (368) Kami berkereta api ke Siantar.
 A=O V L
 we by-carriage-fire to Siantar
 We went to Siantar by train.
- (369) Mereka berperahu ke pulau itu.
 A=O V L
 they by-boat to island the
 They went to the island by boat.
- (370) Paman saya berkapal terbang dari Jakarta.
 A = O V L
 uncle I by-ship-fly from Jakarta
 My uncle came from Jakarta by plane.

These sentences are respectively paraphrasable as follows:

- (371) Toni pergi ke sekolah dengan sepeda.
 A=O V L I
Toni go to school with bicycle
Toni goes to school by bicycle.
- (372) Orang kampung itu pergi ke pekan dengan kuda.
 A = O V L I
people village the go to market with horse
The villagers go to the market on horseback.
- (373) Mereka pergi ke pulau itu dengan perahu.
 A = O V L I
they go to island the with boat
They went to the island by boat.
- (374) Paman saya datang dari Jakarta dengan kapal terbang.
 A = O V L I
uncle I come from Jakarta with ship-fly
My uncle came from Jakarta by plane.

The verbs in (371) to (374) are *pergi go* and *datang come*. These verbs are action locative verbs with coreferential Agents and Objects. Besides, they are verbs of motion. The nouns *sepeda*, *kuda*, *kereta api*, *perahu* and *kapal terbang* represent Instrument cases. In (366) to (370) these nouns are incorporationally converted into the verbs *bersepeda*, *berkuda*, *berkereta api*, *berperahu* and *berkapal terbang*. These verbs are also action locative verbs with coreferential Agents and Objects. The prefix *ber-* is attached to the noun bases. The affixations have apparently been triggered by the incorporations.

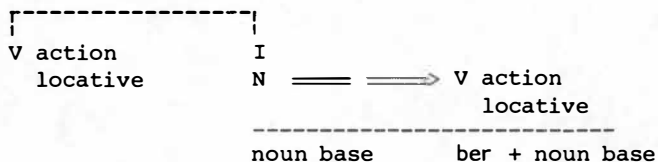
We further observe that the nouns representing the Instruments in the above sentences refer to various kinds of vehicles or means of transportation. It appears that the instrumental nouns that can accompany verbs of motion such as those in (371) to (374) refer only to means of transportation. This is also an interesting characteristic of these verbs, and it can be considered as a constraint on the occurrences of the above incorporation.

From the above description, then, we can draw the following conclusions:

- (1) A noun representing the Instrument case in the semantic structure of an action locative verb with coreferential Agent and Object may be incorporationally converted into an action locative verb. The verb designates motion and the Instrument noun refers to a means of transportation.
- (2) The process triggers the affixation of *ber-* in the surface structure.

The second rule of *ber-* incorporation may be formulated as follows:

Ber- Incor Rule 2:



- Conditions: (1) The verb which is found in the semantic structure is a verb of motion and has A=O.
 (2) The Instrument noun refers to a means of transportation.

This rule appears to be of high actual productivity. We have not come across any example of potential productivity.

The third type of *ber-* incorporation is observable in the following sentences:

- (375) Rini sedang berbedak.
 A V
Rini going-on put-on-powder
Rini is putting powder on her face.
- (376) Ibu sedang berpakaian.
 A V
mother going-on put-on-dress
Mother is dressing (herself).
- (377) Pak Tahir sedang berdasi.
 A V
father Tahir going-on put-on-tie
Mr Tahir is putting on a tie.
- (378) Toni sedang bersepatu.
 A V
Toni going-on put-on-shoe
Toni is putting on (his) shoes.

These sentences are paraphrasable respectively as follows:

- (379) Rini sedang memupurkan bedak ke mukanya.
 A V O L
Rini going-on put powder onto face-her
Rini is putting powder on her face.
- (380) Ibu sedang mengenakan pakaian ke tubuhnya.
 A V O L
mother going-on put dress onto body-her
Mother is dressing (herself).
- (381) Pak Tahir sedang memasang dasi ke lehernya.
 A V O L
father Tahir going-on put tie onto neck-his
Mr Tahir is putting a tie on (his neck).
- (382) Toni sedang memasang sepatu ke kakinya.
 A V O L
Toni going-on put shoe onto feet-his
Toni is putting shoes on (his feet).

The verbs in (379) to (382) are *memupurkan*, *mengenakan* and *memasang*. These verbs are action locative verbs. The nouns *bedak*, *pakaian*, *dasi* and *sepatu* represent the Objects in their semantic structures. These nouns are incorporationally converted into the verbs *berbedak*, *berpakaian*, *berdasi* and *bersepatu* in (375) to (378). These verbs are also action locative verbs, but the Objects are totally covert due to the incorporations. The prefix *ber-* is attached to the noun bases. The affixations are obviously triggered by the incorporations. There is another phenomenon observable in (375) to (378), that is, there are no nouns which represent the Locative cases. In order to account for this phenomenon, let us first observe the entities specified by the Locative in (379) to (382). The Locative nouns obviously refer to the parts of the agents' bodies. In other words, they all refer to inalienable possessions. Note that the suffix *-nya* designates the notion of possession. Since the Locative nouns refer to the parts

of the agents' bodies, we may interpret that the Locative nouns and the Agent nouns essentially refer to identical entities. Consequently, the notion of reflexivity is implied in the sentences. As we mentioned above, in (375) to (378), the Locative cases are not represented. This absence is obviously due to a deletion which generally occurs when two nouns (noun phrases) which refer to identical entities are present in the surface structure. Despite the deletion the meanings conveyed by sentences (375) to (378) are still the same as the meanings conveyed by (379) to (382).

In BI, as we shall see in the special additional part after Chapter V, a deletion of a noun as discussed above is regularly marked by the prefix *ber-* in the verb. Therefore, the affixations of *ber-* to the noun bases in (375) to (378) are consistent with the regularity.

The notion of inalienable possession mentioned above, which entails the notion of reflexivity, is a significant constraint on the occurrence of the incorporation under discussion.

The noun representing the Object in (383), for instance, cannot be converted into a verb incorporationally, since the Locative noun does not refer to an inalienable possession of the agent.

In other words, the Locative noun and the Agent noun do not refer to identical entities:

- (383) Rini sedang memupurkan bedak ke mejanya.
 A V O L
 Rini going-on put powder on table-her
 Rini is putting powder on her table.

Closer observation reveals that the nouns representing the Objects in (379) to (382) generally refer to objects or materials for beautification including dressing articles. This also appears to be a constraint on the occurrence of the incorporation. The noun representing the Object in (384)a, for instance, cannot be incorporationally converted into a verb, since (384)b, in which the noun appears as a verb, is unacceptable:

- (384) a Rini sedang menaruh beras ke kepalanya.
 A V O L
 Rini going-on put rice onto head-her
 Rini is putting rice on her head.
 *b Rini sedang berberas.
 Rini going-on rice

Thus, although the noun *kepala head* with the suffix *-nya* refers to an inalienable possession of the agent, the Object noun cannot be converted incorporationally into a verb, since it does not refer to a beautification material.

Finally, we may note that the Locative nouns in (379) to (382) specify goal or terminal locations as can be seen from the preposition *ke to*.

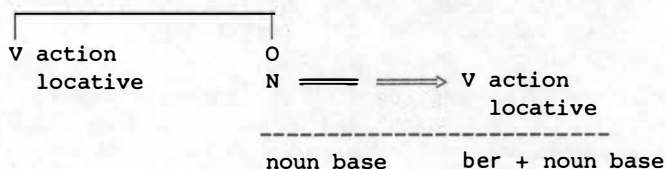
On the basis of the above description, we can draw the following conclusions:

- (1) A noun representing the Object case in the semantic structure of an action locative verb may be incorporationally converted into an action locative verb. The Locative noun refers to an inalienable possession of the agent and specifies a goal or terminal location, and the Object noun refers to a beautification material or article.
- (2) In the process the Locative noun is deleted.

- (3) The incorporation triggers the affixation of *ber-* in the surface structure.

The third rule of *ber-* incorporation may be formulated as follows:

Ber- Incor Rule 3:



- Conditions: (1) The Locative noun refers to an inalienable possession of the agent and therefore it is deleted. At the same time, it also specifies a goal.
- (2) The Object noun refers to a beautification material or article.

This rule may be considered as having high actual productivity, since we have not come across any example of potential productivity.

The fourth type of *ber-* incorporation is observable in the following sentences:

- (385) Ayam itu sudah bertelur.

A V

hen the already lay-egg
The hen already laid eggs.

- (386) Sapi Pak Harun baru beranak.

A V

cow father Harun just give-child
Mr Harun's cow just gave birth to a baby calf.

- (387) Burung itu sedang bercicit.

A V

bird the going-on chirp/squeak
The bird is chirping/squeaking.

The above sentences are paraphrasable respectively as follows:

- (388) Ayam itu sudah menghasilkan telur dari perutnya.

A V O L

hen the already produce egg from stomach-its
The hen has already laid eggs.

- (389) Sapi Pak Harun baru melahirkan anak dari perutnya.

A V O L

cow father Harun just give-birth child from stomach-its
Mr Harun's cow just gave birth to a baby calf.

- (390) Burung itu sedang mengeluarkan bunyi cicit dari kerongkongannya.

A V O L

bird the going-on produce chirping/squeaking sound from throat-its
The bird is producing chirping/squeaking sounds.

The verbs in (388) to (390) are *menghasilkan*, *melahirkan* and *mengeluarkan*. These verbs are action locative verbs. The nouns *telur*, *anak* and *bunyi cicit* represent the Object cases. These nouns are incorporationally converted into the verbs *bertelur*, *beranak* and *bercicit* in (385) to (387). The verbs are also action locative verbs, but the Objects are totally covert due to the incorporations. The prefix *ber-* is attached to the noun bases in the surface structures. The affixation is triggered by the incorporation.

It is interesting to note that the nouns representing the Locative cases generally refer to objects of inalienable possession, and as we can see in (388) to (390) the suffix *-nya* which designates possession is attached to the noun bases in the surface structures. In this respect, the above incorporation is similar to the third type of *ber-* incorporation. In other words, the notion of reflexivity is also implied in the sentences, because the Locative nouns and the Agent nouns essentially specify identical entities.

As we can see, in (385) to (387) the Locative cases are not represented. The reason for this absence can be explained in the same manner as in the third type of *ber-* incorporation. That is to say, the Locative nouns are deleted, because of the identical reference mentioned above. Thus, the affixations of *ber-* in (385) to (387) are consistent with the affixations of *ber-* which mark the notion of reflexivity as we hinted in the discussion of the third type of *ber-* incorporation.

There is an important difference, however, between the Locative nouns in the above incorporation, that is, in the former the Locative nouns refer to goal or terminal locations, whereas in the latter they refer to source or starting locations as can be seen from the preposition *dari from*.

We further observe that the entities specified by the Objects are essentially related to the entities specified by the Locative nouns in that the former originate in substance in the latter. The significance of such a relationship is evident from the fact that the noun representing the Object in (391) cannot be converted into a verb by the above incorporation:

- (391) a Ayam itu sudah menghasilkan batu dari perutnya.
 A V O L
 hen the already produce stone from stomach-its
 The hen has already excreted a stone (from its stomach).
 *b Ayam itu sudah berbatu.
 Hen the already stone.

As we can see the noun *batu stone* which represents the Object, and the noun *perut stomach* representing the Locative case do not bear the relationship mentioned above. Thus, sentence (391)b is anomalous.

Some nouns referring to sounds produced by certain animals, however, seem to contradict what we have just described. This is exemplified in (392):

- (392) a Kucing itu mengeluarkan bunyi ngeong dari kerongkongannya.
 A V O L
 cat the produce sound mew from throat-its
 The cat mews.
 b Kucing itu berngeong.
 A V
 cat the produce-mew
 The cat mews.

c Kucing itu mengeong.
 A V
 cat the produce-mew
 The cat meows.

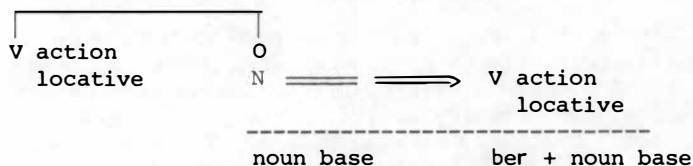
The noun *bunyi ngeong mew* represents the Object and the noun *kerongkongan throat* represents the Locative case. This sentence is similar to (390). In (392)b, the noun *ngeong* is incorporationally converted into the verb *berngeong* following the above incorporational process. This incorporationally formed verb, however, does not seem to be common. The most common is *mengeong* (392)c, which is also incorporationally formed, but in the surface *meN-* is triggered. We are not able at present to provide a satisfactory reason for the affixation of *meN-* in (392)c. We assume, however, that the *ber-* incorporationally formed verbs are probably the most common, firstly, because their number seems to be greater, and secondly, similar incorporations are common in some other regional languages of Indonesia. In Toba Batak, for instance, the prefix *mar-* is equivalent to the prefix *ber-* in BI. The prefix *mar-* in Toba Batak is regularly triggered in the surface structure by the above incorporation, even when the nouns representing the Object cases refer to animal sounds such as *ngeong*. Thus, sentence (392)b, is equivalent to 'Huting *marngeong*' in Toba Batak.

From what we discussed above, we can draw the following conclusions:

- (1) A noun representing the Object in the semantic structure of an action locative verb may be incorporationally converted into an action locative verb. The Locative noun refers to an inalienable possession of the agent and specifies a source or starting location. The Object noun refers to an entity which originates in the entity specified by the Locative noun.
- (2) The process triggers the affixation of *ber-* in the surface structure.

The fourth rule of *ber-* incorporation may be formulated as follows:

Ber- Incor Rule 4:



- Conditions:
- (1) The Locative noun refers to an inalienable possession of the agent and specifies a source or starting location. It is deletable.
 - (2) The object noun specifies an entity which originates in the entity specified by the locative noun.

This rule can also be considered as having high actual productivity. We have not found an example of potential productivity.

4.6. Se- incorporations

These incorporations trigger the affixations of *se-* in the surface structure. Let us observe the following sentences:

- (393) Toni dan Tuti sekampung.

O V
Toni and Tuti one-village
Toni and Tuti are fellow villagers/originate from one village.

- (394) Mereka sekeluarga.

O V
they one-family
They originate from one family.

- (395) Sudin dan Rudi sebangsa.

O V
Sudin and Rudi one-nation
Sudin and Rudi are fellow countrymen/originate from one nation.

These sentences are respectively paraphrasable as follows:

- (396) Toni dan Tuti berasal dari satu kampung.

O V L
Toni and Tuti originate from one village
Toni and Tuti are fellow villagers/originate from one village.

- (397) Mereka berasal dari satu keluarga.

O V L
they originate from one family
They originate from one family.

- (398) Sudin dan Rudi berasal dari satu bangsa.

O V L
Sudin and Rudi originate from one nation
Sudin and Rudi are fellow countrymen/originate from one nation.

The verb in (396) to (398) is *berasal originate*. This verb is a process locative verb. We should note that this verb is considered as a process, because it designates an abstract motion (cf. Anderson 1971:129). We should also note that the Locative nouns in (396) to (398) specify source or starting locations with respect to the abstract motion. The nouns *kampung village*, *keluarga family*, and *bangsa nation* represent the Locative cases. These nouns are incorporationally converted into the verbs *sekampung*, *sekeluarga* and *sebangsa* in (393) to (395). The verbs are also locative verbs, but the Locative cases are totally covert due to the incorporations.

Closer observation shows that besides the incorporation of the nouns representing the locative cases, there is another notion simultaneously incorporated, that is, the notion designated by *satu one*. This notion is not implied in the verb *berasal*. It should be noted that the notion designated by *satu* in these sentences is not the same as the one designated by the numeral *satu one*. In such sentences, the word conveys a meaning of 'unity'. For lack of a term, let us assign the feature <oneness> to the meaning. Since this feature is not implied in the verb *berasal* and it is only added simultaneously, it may be considered as an inflectional feature. The involvement of this inflectional feature seems to be also an explanation for the affixations of *se-* triggered by the above incorporations which appear to bear some conformity with those triggered by equative derivations in that the notion of 'equality' is also implied, at least to some extent.

The inflectional feature <oneness> has the implication that the nouns representing the Objects should be plural. This implication appears to have an empirical as well as logical ground. That is to say that 'unity' or 'oneness' is sensible only when there are two or more objects. Further implication seems to be that objects should be animate. The noun representing the Object in (399)a, for instance, cannot be converted into a verb incorporationally, since (399)b is unacceptable:

(399) a Pohon-pohon ini berasal dari satu hutan.
 O V L
 tree this originate from one forest
 These trees originate from one forest.

*b Pohon-pohon ini se hutan.
 These trees one-forest

As we can see the noun pohon-pohon *trees* refer to inanimate objects.

We may finally note that the nouns representing the Locative cases seem to have to be 'non-unique', adopting Chafe's term (1970:112). Thus, the noun representing the Locative in (400)a, for instance, cannot be converted into a verb incorporationally.

(400) a Mereka berasal dari Indonesia.
 O V L
 They originate from Indonesia.

*b Mereka seindonesia.
 They one Indonesia

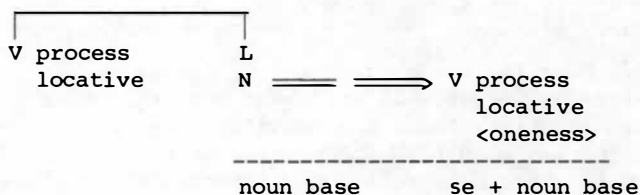
The noun Indonesia has the feature 'unique' or traditionally such a noun is known as a proper name. Evidently, the feature <oneness> is not compatible with the feature 'unique'.

From the above description, we can draw the following conclusions:

- (1) A noun representing the Locative case in the semantic structure of a process locative verb may be incorporationally converted into a process locative verb. The verb which is found in the semantic structure designates an abstract motion, and is lexically realised as *berasal*. The locative noun specifies a source or starting location with respect to the abstract motion. The Object noun specifies plural animate entities.
- (2) In this incorporation the inflectional feature <oneness> is simultaneously added to the incorporationally formed verb.
- (3) The process triggers the affixation of *se-* in the surface structure.

The first rule of *se-* incorporation may be formulated as follows:

Se- Incor Rule 1:



The second type of se- incorporational derivation is exemplified in the following sentences:

- (403) Para mahasiswa itu sekamar makan.
A V
all student the one-room-dine
The students dine in one dining-room.

(406) Para mahasiswa itu makan di satu kamar makan.
 $\begin{matrix} A & & V & & L_O \\ \text{all} & \text{student} & \text{the} & \text{eat} & \text{in one dining-room} \\ \text{The students} & \text{dine} & \text{in one dining-room.} \end{matrix}$

The verbs in (404) to (406) are *bekerja*, *tinggal* and *makan*. These verbs are action verbs. The verb *tinggal* *stay*, however, is different from the other verbs in that this verb is an action locative, thus, the Locative case is present in its semantic structure. We may note that the meaning of *tinggal* taken into account in (405) is *to make oneself-stay*. In the semantic structure of the verbs *bekerja* and *makan* there are no Locative cases required, thus in (404) and (406) are outer Locatives or modal Locative cases (Cook 1973a:57). Note also that the Object in the semantic structure of *makan* is partially overt, and the Object of the verb *bekerja* is covert due to a deletion.

The nouns *kantor* and *kamar makan* represent the modal Locative cases and the noun *hotel* represents the propositional Locative case. In (401) to (403) these nouns are incorporationally converted into the verbs *sekantor*, *sehotel* and *sekamar makan*. The verbs *sekantor* and *sekamar makan* are action verbs, and the verb *sehotel* is an action locative verb. The prefix *se-* is attached to the noun bases. The affixations are apparently triggered by the incorporations.

Closer observation indicates that with respect to action locative verbs, only those which are non-motional and have coreferential Agents and Objects can be involved in the above incorporation. Thus, sentence (407)b in which the Locative noun appears as a verb, is not acceptable:

- (407) a *Mereka pergi ke laut.*
 A=O V L
 They went to sea.
- *b *Mereka selaut.*
 They one-sea.

As we can see the verb in (402)a is *pergi go* which is a verb of motion. Thus, the Locative noun *laut* cannot be converted into an action locative verb incorporationally.

As in the first type of *se-* incorporation, in the above incorporation too the notion of unity or oneness is also involved as represented by *satu one* in (404) to (406), and the notion is represented by *se-* in (401) to (403). Therefore, the inflectional feature <oneness> is also incorporated into the incorporationally formed verbs.

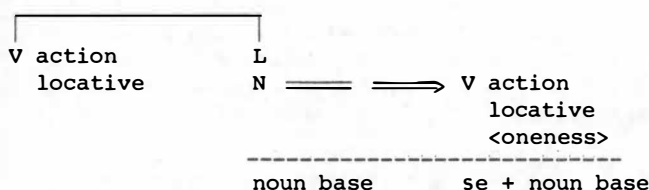
As we can see in (404) to (406) various locative nouns can be converted into verbs by the incorporation, representing either proposition or modal Locative cases. Such nouns generally refer to concrete locations or places in which certain actions are performed in unity by plural animate agents. As in the first type of *se-* incorporation, the inflectional feature <oneness> is also a fundamental constraint on the occurrences of the above incorporation. We also note that the locative nouns that can be converted into verbs by this incorporation should be 'non-unique'. If the locative-nouns are 'unique', the inflectional feature <oneness> cannot be present, and, consequently the incorporation cannot occur.

On the basis of the above discussion, we may draw the following conclusions:

- (1) A noun representing a Locative case in the semantic structure of an action locative verb may be incorporationally converted into an action locative verb. The Locative noun refers to a non-unique entity and a concrete place. The Agent noun specifies plural animate entities. The verb is non-motional and has coreferential Agent and Object.
- (2) A noun representing an outer Locative case (modal locative case) in the semantic structure of an action verb may be incorporationally converted into an action verb. The noun representing the outer Locative refers to a non-unique entity and a concrete place. The Agent noun refers to plural animate entities.
- (3) In these incorporations (1 and 2) the inflectional feature <oneness> is simultaneously added to the incorporationally formed verb.
- (4) The process triggers the affixation of *se-* in the surface structure.

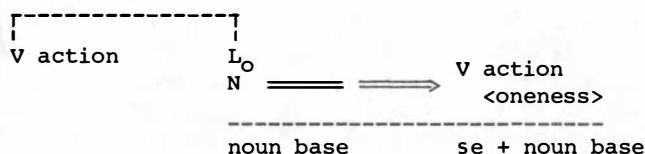
Two additional rules of *se-* incorporation may be formulated as follows:

Se- Incor Rule 2:



- Conditions:
- (1) The Locative noun refers to a non-unique entity and a concrete place.
 - (2) The Agent noun specifies plural animate entities.
 - (3) The verb which is found in the semantic structure is non-motional and has co-referential Agent and Object.

Se- Incor Rule 3:



- Conditions:
- (1) The Locative noun refers to a non-unique entity and concrete place.
 - (2) The Agent noun specified plural animate entities.

Note that L_o in the rule stands for 'outer Locative'. The above rules appear to have very limited actual productivity due to the constraints stated in conclusions (1) and (2). Other examples of verbs generated by Se- Incor Rule 2 are *serumah stay in one house*, *seasrama stay in one dormitory*, and *sepondok stay in one hut*. Other examples of verbs generated by Se- Incor Rule 3 are *sedapur cook in one kitchen*, *sepemandian bathe in one bathing place*, and *selapangan tennis play tennis in one tennis court*.

4.7. Summary

In this chapter we have discussed six major types of incorporation in BI. We have shown that the incorporational processes in general regularly trigger certain affixations in the surface structure. The affixations are generally consistent with the affixations triggered by the derivations relevant to the selectional features of the verbs, as we discussed in Chapter III. The constraints on the occurrences of the incorporations, which trigger the constraints on occurrences of the affixations, are generally determinable in terms of (1) the selectional features of the verbs found in the semantic structures, (2) the cases represented by the nouns which are incorporated, including the semantic characteristics of the nouns, and (3) the semantic characteristics of the nouns representing other cases which are related to the incorporated nouns. In order to have an overall view of the incorporations we summarise them in the following table.

Table 5: Incorporations							
	1 Types of incorp.	2 Verb Types in SS	3 C Incor N	4 Simult. features	5 Incorporational features	6 Special Conditions	7 Affixes
1	meN- incorps.	(1) process	O ₂ N	-	process	-	meN-
		(2) process loc.	L N	-	process locative	-	meN-
		(3) action	O N	-	action	-	meN-
		(4) action	I N	-	action	-	(meN-)
		(5) action loc.	O N	-	action locative	-	(meN-)
2	kan- incorps.	(1) action loc.	L N	-	action locative	-	(meN-)
		(2) action	O ₂ N	-	action	-	(meN-)-kan
3	i- incorps.	(1) action loc.	O N	-	action locative	L = goal	(meN-)-i
		(2) action loc.	O N	-	action locative	L = source	(meN-)-i
4	per- incorps.	(1) action	O ₂ N	perfective reflective- benefactive	action	-	(meN-)+per-

Continued over....

Table 5: *Continued.*

	1 Types of incorp.	2 Verb Types in SS	3 C Incor N	4 Simult. features	5 Incorporational features	6 Special Conditions	7 Affixes
5	ber- incorps.	(1) state benef. (2) action (3) action loc. (4) action loc.	O N I N O N O N	- - - -	state benef. action locative action locative action locative	- - L = goal; O; beautification material. L = source; O; originates in the entity specified by the Locative noun.	ber- ber- ber- ber-
6	se- incorps.	(1) process loc. (2) action loc. (3) action	L N L N L _O N	oneness oneness oneness	process locative action locative action	- - -	se- se- se-

NOTES: (1) SS in column 2 stands for semantic structure.

(2) In column 3, C stands for the case represented by the incorporated noun (incor N).

(3) Column 4 contains the inflectional features which are simultaneously added to the incorporationally formed verbs (incorporational verbs).

(4) Column 6 contains the specific semantic conditions which make two types of incorporation distinct, wherever conditions stated in other columns are the same.

(5) The parentheses enclosing the prefix meN- in column 7 indicate that the prefix is not triggered by the incorporations.

We may finally note that, as we can see in Table 5, the noun that can be incorporationally converted into a verb in BI is only that which represents an Object, Locative, or Instrument case. The Locative may be either propositional or modal. Thus, the noun representing an Agent, Experiencer, or Benefactive case is never incorporated.

CHAPTER V

INFLECTIONS

5.0. PRELIMINARY REMARKS

In Chapter I, section 1.6., we discussed the distinctions between a selectional and an inflectional feature. We may restate the distinctions briefly as follows:

- (1) A verb selectional feature dictates the presence of a case role in the semantic structure of the verb, whereas an inflectional feature does not.
- (2) Verb selectional features determine the generation of verb lexical units, whereas inflectional features do not. The addition of an inflectional feature to a verb, however, brings some new notion.

We also indicated that in BI there were also inflections as in English, but they were represented differently in the surface structure. We pointed out that in the present study we were concerned only with the inflections involving affixations. In this chapter we would like to discuss these inflectional processes and the constraints on their occurrences.

Each of the sections of the chapter will be entitled in accordance with the inflectional feature involved. Where necessary each section will be divided into subsections in accordance with the affixations which appear in the surface structure.

5.1. Iterative inflections

This inflectional process triggers the affixation of (meN-)-i in the surface structure. Let us observe the following sentences:

- (408) Sudin melempari mangga Pak Tahir.
 A V O
 Sudin throw-repeatedly mango father Tahir
 Sudin threw (something) repeatedly at Mr Tahir's mangoes.
- (409) Toni memukuli adiknya.
 A V O
 Toni beat-repeatedly younger brother-his
 Toni beat his younger brother repeatedly.

- (410) Pak Burhan menjual harta bendanya kepada tetangganya.
 A V O B
father Burhan sell-repeatedly property-his to neighbour-his
Mr Burhan kept selling his properties to his neighbours.
- (411) Tina mengangkat air dari sumur.
 A V O L
Tina take-repeatedly water from well
Tina took water repeatedly from the well.
- (412) Petani itu mengirai anak ayamnya.
 A = E V O
farmer the count-repeatedly child chicken-his
The farmer counted his chickens repeatedly.

Morphologically, the affixes (meN-)-i are attached to the verb bases *lempar* throw (something) at, *pukul* beat, *jual* sell, *angkat* take, lift, and *kira* count, in the above sentences. The first two verbs are action verbs, the third is an action benefactive, the fourth is an action locative, and the last is an action experiential verb. They are respectively of the same types as the verbs in the above sentences, as we can see in (413) to (417):

- (413) Sudin melempar mangga pak Tahir.
 A V O
Sudin threw (something) at Mr Tahir's mangoes.
- (414) Toni memukul adiknya.
 A V O
Toni beat his younger brother.
- (415) Pak Burhan menjual harta bendanya kepada tetangganya.
 A V O B
Mr Burhan sold his properties to his neighbours.
- (416) Tina mengangkat air dari sumur.
 A V O L
Tina took water from the well.
- (417) Petani itu mengira anak ayamnya.
 A = E V O
The farmer counted his chickens.

The selectional features of the above verbs are respectively the same as those of the verbs in (408) to (412) as can be seen from the cases marked underneath the sentences. Since the verb types are the same, we may conclude that there are no derivations taking place. The meanings of the verbs in (408) to (412), however, are different from those of the verbs in (413) to (417). As indicated by the English translations, a notion of 'repetition' is already added to each of the verbs in (408) to (412). This notion is not designated by the verbs in (413) to (417). Obviously, this notion does not change the semantic structures of the verbs. We may therefore conclude that the notion is added by an inflectional process. We would like to propose that the feature <iterative> be assigned to represent the notion of 'repetition' added by the inflection, and that the inflectional process be called 'iterative inflection'. It is this process that triggers the affixations of (meN-)-i in the surface structures in (408) to (412). Note that the prefix (meN-) is semantically redundant, therefore it is deletable.

We mentioned above that the inflectional feature <iterative> represented the notion of repetition of the action designated by the verb. This is only a

simple way of stating it. The repetition of the action, however, should be perceived as having two implications, namely, (1) the action is repeated, but the entity specified by the Object noun is singular, as exemplified in (409); (2) the action is repeated, because the entities specified by the Object noun are of considerable number, as exemplified in (408), (410), etc. We have to note, therefore, that these implications are not fully captured by the English adverb 'repeatedly' in the translations.

Iterative inflection seems to occur only to action verbs with overt Objects. Thus, there is no feature <iterative> added to the verbs in the following sentences.

(418) Tuti membasahi rambutnya.

A V L
Tuti wet her hair.

* (419) Mereka menimbuli kapal selam itu.

They emerge submarine the

(420) Dia mendatangi orang asing itu.

A=O V L
He came to the foreigner.

The basic verb in (418) is the state verb *basah* *wet*, (419) is the process verb *timbul* *emerge*, and in (420) is the verb *datang* *come*, which is an action locative verb with coreferential Agent and Object. The affixations of (meN-)-i in (418) and (420) are triggered by i- causative derivations. Since (419) is unacceptable, it does not need further discussion.

Since the above iterative inflection triggers the affixation of -i, for systematic convenience let us call it i- iterative inflection.

From the above description, the following conclusions may be drawn:

- (1) I- iterative inflection can occur to basic action verbs (experiential, benefactive or locative) with totally overt Objects.
- (2) In this inflectional process, the inflectional feature <iterative> is added to the verb.
- (3) The process triggers the affixation of (meN-)-i in the surface structure.

The rule of i- iterative inflection may be formulated as follows:

I- iterative inflection Rule:

V action		V action
$\left(\begin{array}{l} \text{experiential} \\ \text{benefactive} \\ \text{locative} \end{array} \right)$	$\longrightarrow \longrightarrow$	$\left(\begin{array}{l} \text{experiential} \\ \text{benefactive} \\ \text{locative} \end{array} \right)$
		iterative

verb base

(meN-) + verb base + i

Conditions: (1) The verb has a totally overt Object.

(2) The verb is basic.

The second type of iterative inflection is observable in the following sentences:

- (421) Burung-burung itu berterbangan ke hutan.
 A = O V L
 bird the fly-repeatedly to wood
 The birds flew (repeatedly) to the wood.
- (422) Anak-anak itu berlarian ke luar.
 A = O V L
 child the run-repeatedly to outside
 The children ran (repeatedly) outside.
- (423) Tamu-tamu sudah berdatangan ke tempat itu.
 A = O V L
 guest already come-repeatedly to place the
 The guests have come (repeatedly) to the place.
- (424) Murid-murid bermasukan ke dalam kelas.
 A = O V L
 pupil go-repeatedly into class
 The pupils went (repeatedly) into the class.

† The selectional features of the verbs in the above sentences are respectively the same as those of the verbs in (421) to (424) as indicated by the cases marked underneath the sentences. Since the verbs are of the same type, we may conclude that there are no derivations taking place. The meanings of the verbs in (421) to (424), however, are different from the meanings of the above sentences. As in i- iterative inflection, these verbs also imply the notion of 'repetition'. This additional meaning, we may conclude, is also due to an inflection involving the inflectional feature <iterative>. Unlike i- iterative inflection, however, this inflection does not trigger the affixation of (meN-)-i, but the affixation of ber-an.

Besides the difference in the triggered affixation, the semantic implications of the above iterative inflection are also different from those of i- iterative inflection. As we can see in (421) to (424), the entities specified by the coreferential Agent and Object nouns are always plural, and the plurality here implies a considerable number. Furthermore, the repetition of the action does not mean that the same action is repeated by the same agent or agents, but it means that the same action is performed by one or two agents at a time until the whole group of agents perform it. Thus, (421) actually means that the birds flew from a certain place one or two or more at a time until all the birds had gone. We should note again that what we mean by the notion of repetition is not actually captured by the English adverb 'repeatedly'.

For systematic convenience, let us call this second type of iterative inflection the ber-an- iterative inflection. This inflection appears to occur only with the verb type discussed above. The following sentences, for instance, are unacceptable:

- * (429) Gadis-gadis itu bermerahan bibir.
 Girls the red lip.
- * (430) Cendawan-cendawan itu bertumbuhan.
 Mushrooms the grow.
- * (431) Anak-anak itu berlemparan mangga.
 Children the throw mangoes.

† See page 147.

The basic verb in (429) is merah *red*, in (430) is tumbuh *grow*, and in (431) is lempar *throw at*, which are respectively a state, process, and action. Note that lempar is an action verb with non-coreferential Agent and Object.

On the basis of the above descriptions, we may draw the following conclusions:

- (1) Ber-an iterative inflection can occur with basic action locative verbs, with coreferential Agents and Objects.
- (2) In this inflectional process, the inflectional feature <iterative> is added to the verb.
- (3) The process triggers the affixation of ber-an in the surface structure.

The rule of ber-an iterative inflection may be formulated as follows:

Ber-an Iterative Inflection Rule:

V action	—————>>	V action
locative		locative
		<iterative>

verb base

ber + verb base + an

Conditions: (1) The verb has coreferential Agent and Object.

(2) The verb is basic.

5.2. Excessive inflection

This inflectional process triggers the affixation of ke-an in the surface structure. Let us observe the following sentences:

(432) Cat rumah itu kehijauan.
 _{Os} _V
 paint house the too-green
 The paint of the house is too green.

(433) Jam saya kecepatan.
 _{Os} _V
 watch I too-fast
 My watch is too fast.

(434) Sayur itu kematangan.
 _{Os} _V
 vegetable the too-cook
 The vegetable is overcooked.

(435) Celana Toni kebesaran.
 _{Os} _V
 pants Toni too-big
 Toni's pants are too big.

(436) Teh ini kemanisan.
 _{Os} _V
 tea this too-sweet
 This tea is too sweet.

It is morphologically evident that the affixes ke-an are attached to the verb bases hijau *green*, cepat *fast*, matang *cooked*, besar *big*, and manis *sweet* in the above sentences. These basic verbs are states. They are of the same type respectively as the verbs in the above sentences, as we can see in (437) to (441):

- (437) Cat rumah itu hijau.
 _{Os} _V
The paint of the house is green.
- (438) Jam saya cepat.
 _{Os} _V
My watch is fast.
- (439) Sayur itu matang.
 _{Os} _V
The vegetable is cooked.
- (440) Celana Toni besar.
 _{Os} _V
Toni's pants are big.
- (441) Teh ini manis.
 _{Os} _V
This tea is sweet.

The selectional features of the verbs in the above sentences are respectively the same as those of the verbs in (432) to (436) as indicated by the cases marked underneath the sentences. Since the verbs are of the same type, we may conclude that there are no derivations taking place. However, there is an additional notion in each of the verbs in (432) to (436) as compared to the meanings of the verbs in the above sentences. The notion is roughly equivalent to the notion designated by the English adjective modifier 'too'. This additional notion obviously does not change the semantic structures of the verbs. Therefore, we can conclude that the notion is added by an inflectional process. In order to account for the notion, we postulate that there is an inflectional feature <excessive> in BI. Let us call the above inflectional process, in which the feature <excessive> is involved, 'excessive inflection'.

Since the feature <excessive> is related only to quality or state, the inflection naturally does not occur with process and action verbs. Even with state verbs, the occurrences of this inflectional process seem to be limited. The following sentences, for instance, are unacceptable:

- * (442) Dia kesukaan rambutan.
 He too-much-like rambutan
- * (443) Pak Burhan kepunyaan uang.
 Mr Burhan too-much-have money
- * (444) Tuti keadaan di rumah.
 Tuti too-much-present at home

The basic verbs in (442) to (444) are suka, punya, and ada, which are respectively state experiential, state benefactive, and state locative. These verb types cannot undergo excessive inflection.

Besides the above state verbs, there are also a few other state verbs which cannot undergo excessive inflection. Sentences (445) and (446), for instance, are unacceptable:

- * (445) Wajah gadis itu kecantikan.
 Face girl the pretty
- * (446) Laki-laki itu kekayaan.
 Man the rich

- (450) Mereka berpelukan.
 A & O V
 they embrace-each-other
 They embraced each other.
- (451) Toni dan Sudin berpanggilan.
 A & O V
 Toni and Sudin call-each-other
 Toni and Sudin called each other.

The affixes ber-an are obviously attached to the verb bases *salam shake hands*, *cium kiss*, *tolong help*, *peluk embrace*, and *panggil call* in the above sentences. These verbs are action verbs, and they are of the same type as the verbs with the affixes ber-an. We may therefore conclude that there are no derivational processes taking place.

The verbs with ber-an in (447) to (451), however, have an additional notion as compared to the above basic verbs, that is, the notion of reciprocity. This notion is not implied in the basic verbs, as can be seen in (452) and (453):

- (452) Pak Burhan menyalam Pak Abu.
 A V O
 Mr Burhan shook Mr Abu's hand.
- (453) Toni mencium Tuti.
 A V O
 Toni kissed Tuti.

Note first that (meN-) is semantically redundant in these sentences. Sentence (452) means that Mr Burhan shook Mr Abu's hand, but Mr Abu did not necessarily react the same way for some reason or other. Similarly sentence (453) means that Toni kissed Tuti, but he might have done it by force or stealthily so that Tuti did not react the same way.

Since there are no derivational processes taking place, we may conclude that the notion is added by inflectional processes. The inflectional feature <reciprocal> is assigned to such a notion. We propose to call this inflectional process reciprocal inflection. The process triggers the affixation ber-an in the surface structure. The presence of <reciprocal> requires that the Agent and Object are of identical referents and that they are dual. To indicate these phenomena we use the symbol & between the Agents and Objects underneath sentences (447) to (451).

The verbs that can undergo reciprocal inflection are obviously only action verbs, since Agents and Objects are required. Furthermore, the Objects should be overt. Another phenomenon that may be considered as a constraint is that the entities specified by the Agent and Object nouns seem to have to be animate capable of performing reciprocal actions. Sentences like (454) and (455), for instance, are not acceptable, unless they are interpreted metaphorically:

- ?(454) Toni dan pohon itu berpelukan.
 Toni and tree the embrace
- ?(455) Toni dan bayi itu bertolongan.
 Toni and baby the help-each-other

Since the reciprocal inflection triggers the affixation of ber-an, let us call it the ber-an reciprocal inflection.

On the basis of the above description, we may draw the following conclusions:

- (459) Kopi saya diminum (oleh) Toni.
 O V A
 coffee I be-drunk (by) Toni
 My coffee was drunk by Toni.
- (460) Buku itu diambil (oleh) Tuti dari rak ini.
 O V A L
 book the be-taken (by) Tuti from shelf this
 The book was taken by Tuti from this shelf.
- (461) Mangga itu sudah dihitung (oleh) ibu.
 O V A - E
 mango the already be-counted (by) mother
 The mangoes have been counted by mother.
- (462) Suara itu didengar (oleh) tetangga saya.
 O V E
 voice the be-heard (by) neighbour I
 The voice was heard by my neighbour.
- (463) Kecelakaan itu dilihat (oleh) Salim.
 O V E
 accident the be-seen (by) Salim
 The accident was seen by Salim.
- (464) Mobil itu dibeli (oleh) Pak Salim dari Toni.
 O V A B
 car the be-bought (by) father Salim from Toni
 The car was bought by Mr Salim from Toni.

It is morphologically obvious that the prefix *di-* is attached to the verb bases *minum*, *ambil*, *hitung*, *dengar*, *lihat* and *beli* in the above sentences. The verb *minum* is an action verb, *ambil* is an action locative verb, *hitung* is an action experiential verb with coreferential Agent and Experiencer, *dengar* and *lihat* are process experiential, and *beli* is an action benefactive verb. The Objects are overt, as can be seen, for example, in (465) and (466):

- (465) Toni minum kopi saya.
 A V O
 Toni drink coffee I
 Toni drank my coffee.
- (466) Tetangga saya mendengar suara itu.
 E V O
 neighbour I hear voice the
 My neighbour heard the voice.

Note that (meN-) in (465) is semantically redundant.

In (459) to (464), the Objects are realised as surface subjects. The nouns representing the Objects convey old information and the nouns representing the Agents and the Experiencers convey new information. Since there is a change in the distribution of new information taking place, we can conclude that passive inflections have occurred and these processes have triggered the affixations of *di-* to the verb bases. Besides the affixations, there appears to be another surface element triggered by the processes, namely, *oleh by* which is positioned immediately before the nouns representing the Agents and the Experiencers. The presence of this preposition, however, seems to be optional. This is evident from the fact that sentence (467), for instance, is also acceptable:

- (467) Kopi saya diminum Toni.
 O V A
My coffee was drunk by Toni.

Above we mentioned that the nouns representing the Agents and Experiencers convey new information. In this connection, it is interesting to note that in BI, the presence of this new information may sometimes be emphasised by positioning the nouns representing the Agents or Experiencers at the beginning of the sentences. Thus, sentences (468) and (469), for instance, are acceptable:

- (468) Oleh Tuti buku itu diambil dari rak ini.
 A O V L
by Tuti book the be-taken from shelf this
The book was taken by Tuti from this shelf.

- (469) Oleh Salim kecelakaan itu dilihat.
 E O V
by Salim accident the be-seen
The accident was seen by Salim.

The permutation of the Agent or the Experiencer noun observable in the above sentences is apparently a postsemantic process. It does not change the semantic structure of the verb. It is important to note that when a permutation occurs, the preposition *oleh by* is obligatorily present. Sentence (470), for example, is unacceptable, because *oleh* is not present:

- *(470) Tuti buku itu diambil dari rak ini.

Further observation indicates that the nouns representing the Agent, Experiencer, Benefactive, and Locative cases are deletable postsemantically. Thus, the following sentences are acceptable:

- (471) Surat itu sudah dibalas.
 O V
letter the already be-answered
The letter has been answered.

- (472) Kopi saya diminum
 O V
My coffee was drunk.

- (473) Kecelakaan itu dilihat.
 O V
The accident was seen.

- (474) Buku itu diambil.
 O V
The book was taken.

- (475) Mobil itu dibeli.
 O V
The car was bought.

The presence of the Agents in (471), (472), and (475), the presence of the Experiencer in (473), the presence of the Locative in (474) are still felt. Examples such as the above, then, show that the presence of the inflectional feature <passive> in an action or a process experiential verb, which is added by the di- passive inflection, does not have the effect that the Agent or the Experiencer is absent in the semantic structure of the verb. This appears to be in contradiction with what Chafe suggests on the basis of data from English

Di- Passive Inflection Rule 2:

V process	—————>>	V process
experiential		experiential
		<passive>

verb base

di + verb base

Conditions: (1) The verb must have a totally overt Object.

(2) The verb is basic.

Before discussing another type of di- passive inflection, we would like to observe the following sentences:

(479) Kejadian itu diketahui (oleh) Pak Tahir.

O_s V E_s
affair the be-known (by) father Tahir
The affair is known to Mr Tahir.

(480) Ceritera itu disukai (oleh) anak-anak.

O_s V E_s
story the be-liked (by) child
Children like the story.

*(481) Rumah itu dipunyai (oleh) Pak Salim.

O V B
House the be-had by Mr Salim

The prefix di- in the above sentences is attached to the verb bases ketahui, sukai, and punyai. We may recall that in Chapter III, section 3.2.2., we considered that these verbs were semantically the same as the basic verbs tahu, suka, and punya. In other words, the affixations are not triggered by semantic processes, and, thus, the affixes are semantically vacuous. The first two verbs are state experiential verbs and the last one is a state benefactive verb. It appears that the state experiential verbs can be passivised, since (479) and (480) are acceptable, but the state benefactive cannot, since (481) is not acceptable. With respect to the state experiential verbs, however, there is an interesting phenomenon, namely, that it is apparently only the verbs with the affixes that can be passivised, since (482) and (483) are unacceptable.

*(482) Kejadian itu ditahu (oleh) Pak Tahir.

*(483) Ceritera itu disuka (oleh) anak-anak.

We are not able at present to explain satisfactorily why the di- passive inflection can occur with the verbs ketahui and sukai, but not with the basic verbs tahu and suka, while all of these verbs have the same semantic structures, that is, they are all state experiential.

One explanation that might be posited, however, is that the affixes ke-i and -i, though semantically vacuous, have made the verbs tahu and suka transitive verbs in the surface structure. This surface phenomenon makes it possible for the verbs to be passivised like other verbs with the suffix -i.

In Chapter III, section 3.2.2., we pointed out that the affixation of ke-i occurred only to the verb tahu, and the affixation of -i only to the verbs suka, ingin, and mau, and not to other state experiential verbs. The irregularity of the affixations and their very limited occurrences led us to a consideration that they were probably idiosyncrasies. The occurrences of the di- passive inflection

with the above four verbs can probably also be viewed in conformity with this consideration.

So far we have discussed di- passive inflection involving basic and derived verbs. It appears, however, that this passivisation occurs also with certain verbs generated by incorporations. Let us observe the following sentences:

- (484) Jalan itu dibatui (oleh) orang kampung.
 L V A
 road the be-arranged-stone-on (by) person village
 The road was covered with stones by the villagers.
- (485) Kambing itu dikuliti (oleh) Pak Sudin.
 L V A
 goat the be-skinned (by) father Sudin
 The goat was skinned by Mr Sudin.
- (486) Pemuda itu dirajakan (oleh) rakyat.
 O₁ V A
 young-man the be-made-king (by) people
 The young man was made king by the people.
- (487) Patung itu diperdewa (oleh) bangsa itu.
 O₁ V A
 statue the be-made-god (by) people the
 The statue was made a god by the people.
- (488) Papan itu digergaji (oleh) Pak Tahir.
 O V A
 board the be-sawed (by) father Tahir
 The board was sawed by Mr Tahir.

The prefix di- in the above sentences is attached to the verb bases batui, kuliti, rajakan, perdewa, and gergaji. As we discussed in Chapter IV, section 4.3., these verbs are generated by incorporations from the basic nouns batu, kulit, raja, dewa, and gergaji. The verbs into which these nouns are incorporated are action locative (484) and (485) and action verbs (486) to (488). Therefore, the verbs batui and kuliti are action locative verbs, and the verbs rajakan, perdewa, and gergaji are action verbs.

In (484) and (485), the Locative cases are realised as surface subjects because lexicalisations of the notions of direction of motion are involved in the incorporations that generate the verbs batui and kuliti. In (486) and (487), the first Objects (O₁) are realised as surface subjects. We may recall that the incorporations which generate the verbs rajakan and perdewa involve the verbs which require two Objects. Only the first Object can be realised as the surface subject in a passivisation. In (488) the Object is realised as the surface subject. As in the di- passive inflection we discussed earlier, the preposition oleh, which immediately precedes the agent nouns, is also optional in the above di- passive inflections. In fact, there is no difference between the above inflections and the ones discussed earlier except for the fact that the above inflections are postsemantic processes, because the verbs involved are generated postsemantically by incorporations.

We may note as well that the prefix (meN-) has been deleted from the verbs batui, kuliti, rajakan, perdewa, and gergaji before attaching di-, as in the previous passive inflections, but the prefix per- is retained. This fact supports our hypothesis that (meN-) is semantically redundant in such verbs.

Obviously the verbs in (484) to (488) have totally overt Objects or have surface direct objects representing Locative cases. It is clear, then, that the verbs generated by incorporations can be passivised only if they have surface objects.

On the basis of the above description, then, the following conclusions can be drawn:

- (1) Di- passive inflection can occur postsemantically with action and action locative verbs generated by incorporations, if they have surface direct objects.
- (2) In this postsemantic inflectional process, the inflectional feature <passive> is added to the postsemantic verb, and this additional feature has the effect on the subject selection.
- (3) The process triggers the affixation of di- in the surface structure.

The postsemantic rule of di- passive inflection may be formulated as follows:

Di- Passive Inflection Rule 3 (postsemantic)

V action	== ==>>	V action
(locative)		(locative)
		<passive>

verb base

di + verb base

Condition: The verb must have a surface direct object.

Note that we use a double shafted and headed arrow to indicate that the rule is postsemantic. In other words, the verb on the left of the arrow is one which is generated by an incorporation. We may note finally that only action and action locative verbs can be involved in the above postsemantic inflections, because nouns representing Experiencer and Benefactive cases are never incorporationally converted into verbs (see Table 5).

5.4.2. Ter- passive inflection

This inflectional process triggers the affixation of ter- in the surface structure.

The following sentences exemplify the process:

- (489) Kunci kantor terbawa oleh Pak Burhan ke rumah.
 O V A L
 key office be-already-taken-accidentally by father Burhan to house
 The key of the office has been taken home accidentally by Mr Burhan.
- (490) Buah busuk itu terbeli oleh ibu dari Pak Surip.
 O V A B
 fruit rotten the be-already bought-accidentally by mother from Mr Surip
 The rotten fruit has been accidentally bought by mother from Mr Surip.
- (491) Balon itu terpukul oleh Toni.
 O V A
 balloon the be-already-struck-accidentally by Toni
 The balloon has been struck accidentally by Toni.

- (492) Kaca itu terpijak oleh Tuti.
 O V A
 glass the be-already-stepped-on accidentally by Tuti
 The glass has been stepped on accidentally by Tuti.
- (493) Surat itu terlihat oleh Apul.
 O V E
 letter the be-already-seen-accidentally by Apul
 The letter has been seen accidentally by Apul.
- (494) Nama itu tersebut oleh Tuti kepada saya.
 O V A E
 name the be-already-said-accidentally by Tuti to I
 The name has been said accidentally by Tuti to me.

The prefix *ter-* is attached to the verbs *bawa*, *beli*, *pukul*, *pijak*, *lihat*, and *sebut* in the above sentences. The verb *bawa* (489) is an action locative verb, *beli* (490) is an action benefactive verb, *pukul* (491) and *pijak* (492) are action verbs, *lihat* (493) is a process experiential, and *sebut* (494) is an action experiential verb. The Objects of these verbs are realised as surface subjects, which indicates that nouns representing the Objects convey old information. The Agents of all the action verbs and the Experiencer of the process experiential verb are realised as nouns preceded by the preposition *oleh by*. Thus, with respect to their semantic structures, the verbs *terbawa*, *terbeli*, etc. in (489) to (494) are similar to those in (459) to (464). The verb *terbawa* (489) for instance, conveys the meaning that the action has already been performed and that it has been performed unintentionally or accidentally. These meanings are not implied in *di-* verbs. In order to account for these meanings, we would like to propose that the inflectional feature <perfective> and <accidental> be added simultaneously with the feature <passive> and <accidental> be added simultaneously with the feature <passive> to the verbs.

Further observation indicates that the presence of *oleh* immediately before the Agent, or Experiencer noun seems to be obligatory. If it is absent, the sentence may convey a different meaning or it may be unacceptable, as we can see in (495) and (496):

- (495) Balon itu terpukul Toni.
 O V E
- * (496) Nama itu tersebut Tuti kepada saya.
 O V A E

Sentence (495) means that the balloon can be struck by Toni. Thus there is another meaning implied, and we will discuss this later. Sentence (496) is not acceptable. The obligatory presence of *oleh*, then, also makes *ter-* passive inflection distinct from *di-* passive inflection.

Ter- passive inflection seems to occur only with basic verbs either action, action experiential, or action locative, with totally overt Objects. It does not seem to occur with derived verbs or with verbs generated by incorporations, as evident from the following sentences:

- (497) Kain itu terbasahi Tuti.
 O V A
 clothes the can-be-wetted Tuti
 The clothes can be wetted by Tuti.

- (498) Daging itu tak terlembutkan.
 O V
 meat the not-be-tenderised
 The meat cannot be tenderised.
- (499) Jalan itu tak diperlebar oleh mereka.
 O V A
 road the not-be-widened by they
 The road cannot be widened by them.
- (500) Kambing itu terkuliti Toni.
 L V A
 goat the can-be-skinned Toni
 The goat can be skinned by Toni.
- * (501) Hal itu terketahui Pak Burhan.
 The matter know Mr Burhan

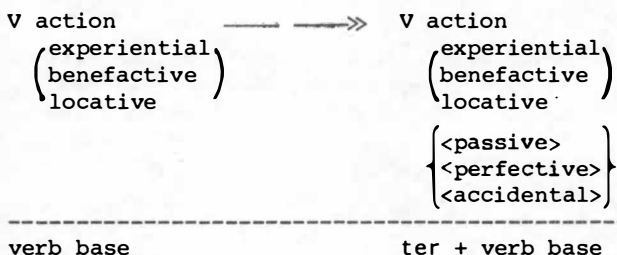
The prefix *ter-* in the above sentences is attached to the verbs *basahi*, *lembutkan*, *perlebar*, *kuliti*, and *ketahui*. The first three verbs are causatively derived action verbs. The verb *kuliti* is a verb generated by *i-* incorporation, and the verb *ketahui* is a state experiential verb with the semantically vacuous affixes *ke-i*. As we can see from the English translations, the meanings conveyed by sentences (497) to (500) are different from those conveyed by (489) to (494) in that they do not imply a notion of completion or accidentality. The *ter-* verbs in (497) to (500) are of a different type, and will be discussed later. The verb *ketahui* as well as *sukai*, and *ingini*, which can undergo *di-* passive inflection as we discussed earlier, cannot undergo *ter-* passive inflection, since (501) is not acceptable.

On the basis of the above discussion, then, the following conclusions can be drawn:

- (1) *Ter-* passive inflection can occur with basic action verbs (experiential, benefactive and locative), and process experiential, if the verbs have totally overt Objects.
- (2) In this inflectional process, the inflectional features <passive>, <perfective>, and <accidental> are simultaneously added to the verb, and the presence of the feature <passive> has the effect on the subject selection.
- (3) The process triggers the affixation of *ter-* in the surface structure.

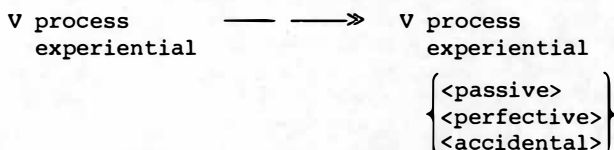
Two rules of *ter-* passive inflection may be formulated as follows:

Ter- Passive Inflection Rule 1:



Conditions: (1) The verb has a totally overt Object.
 (2) The verb is basic.

Ter- Passive Inflection Rule 2:



verb base

ter + verb base

Conditions: (1) The verb has a totally overt Object.

(2) The verb is basic.

In addition to what we have already discussed, our investigation shows that there is another type of ter- passive inflection in BI. Let us observe the following sentences:

- (502) Kopor berat ini tak terbuka (oleh Sudin).
 O V A
 suitcase heavy this can-not-be-opened (by) Sudin
 This heavy suitcase cannot be opened by Sudin.
- (503) Barang ini tak terbeli (oleh) rakyat kecil.
 O V A
 thing this can-not-be bought (by) people small
 This thing cannot be afforded by common people.
- (504) Buku ini terbaca (oleh) anak kelas satu.
 O V A = E
 book this can-be-read (by) child class one
 This book can be read by a first grade pupil.
- (505) Buah kemiri itu terpecahkan (oleh) Toni.
 O V A
 fruit candlenut the can-be-broken (by) Toni
 The candlenut can be broken by Toni.
- (506) Jeruk itu tak terkuliti (oleh) adik.
 L V A
 orange the can-not-be-peeled (by) younger brother
 The orange cannot be peeled by (my) younger brother.

In the above sentences, the prefix ter- is attached to the verbs buka, beli, baca, pecahkan, and kuliti. The verb buka is an action verb, beli is an action benefactive, and baca is an action experiential verb. The verb pecahkan is a causatively derived verb, and kuliti is a verb generated by an incorporation. These last two verbs are respectively action and action locative. The Objects are realised as surface subjects in (502) to (506), but in (506) it is the Locative that is realised as the surface subject. The nouns representing these cases convey old information. The Agents are realised as nouns preceded optionally by the preposition oleh *by* and positioned after the verbs. Thus, the ter- verbs in (502) to (506) have semantic structures similar to sentences (489) to (494). We can therefore conclude that ter- passive inflections have also occurred with the verbs.

There are, however, two significant differences between the two types of ter- passive inflections. In the first place, the verbs in the second type, as exemplified by the above sentences, do not imply a notion of completion and

unintentionality, but they convey the meaning that the actions can be or are capable of being performed by the agents. We can see this meaning from the English translations. This meaning is essentially related to the capability of the agent, that is to say, to the utilisation of the agent's capability. In order to account for this notion, we would like to propose that the inflectional feature <capable> be also added to the verb. The utilisation of capability essentially entails that the action is performed with intent. This entailment is a reason to believe that the inflectional feature <accidental> is incompatible with the inflectional feature <capable>, hence the difference between the two types of ter- passive inflection.

The second difference is related to the constraints on the occurrences of the two types of ter- passive inflection.

The first type can occur with basic action verbs (including experiential, benefactive and locative) and with basic process experiential verbs, but it does not occur with derived verbs and with verbs generated by incorporations. On the other hand, the second type can occur with derived verbs and verbs generated by incorporations, but not with process experiential verbs. The reason why it does not occur with process experiential verbs is obvious from the fact that the inflectional feature <capable> is compatible only to action as mentioned earlier.

There is an indication that the ter- verbs in the second type of ter- passive inflection are used mostly in the negative sentences. However, we are not able at present to make a conclusive generalisation in this respect, since there is still some evidence showing that they are also used in the affirmative sentences as illustrated by (504) and (505). What seems to be obvious is that when the ter- verbs are used in negative sentences, the negative marker should be *tidak* or *tak*, and not *bukan*. This is evident from the fact that (507) is not acceptable:

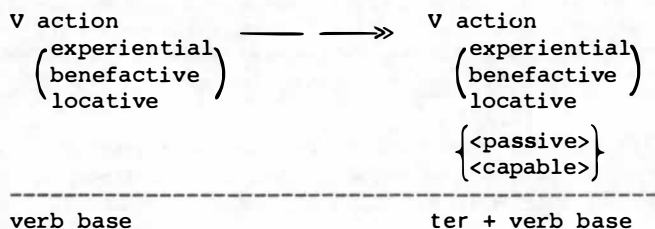
- *(507) Barang ini bukan terbeli (oleh) rakyat kecil.
Thing this not-can-be-buy by people small.

From the above discussion, then, the following conclusions can be drawn:

- (1) The second type of ter- passive inflection can occur with action verbs (experiential, benefactive and locative), basic or derived, and with action and action locative verbs generated by incorporations if the verbs have totally overt Objects, or surface direct objects representing Locative cases.
- (2) In this inflectional process, the inflectional features <passive> and <capable> are simultaneously added to the verb.
- (3) The process triggers the affixation of ter- in the surface structure.

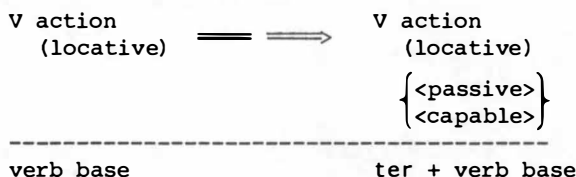
Two additional rules of ter- passive inflection may be formulated on the basis of the above conclusions. One rule involves the basic and derived verbs, and the other involves the verbs generated by incorporations. This latter rule is a postsemantic one:

Ter- Passive Inflection Rule 3:



- Conditions: (1) The verb has a totally overt Object, or a surface direct object representing a Locative case.
 (2) The verb is basic or derived.

Ter- Passive Inflection Rule 4:



Condition: The verb has a totally overt Object, or a surface direct object representing a Locative case.

5.5. Accidental inflection

In section 5.4.2. we discussed the inflectional feature <accidental> which was involved in ter- passive inflection. It appears, however, that this feature is also added to certain verbs without the occurrence of passive inflection, though the addition triggers the affixation of ter- in the surface structure. This inflectional process is illustrated in the following sentences:

- (508) Pasien itu terduduk di kursi.
 A = O V L
 patient the sit-accidentally on chair
 The patient happened to sit on the chair.
- (509) Toni tertiarap di tanah.
 A=O V L
 Toni lie-face-downward-accidentally on ground
 Toni happened to be lying prone on the ground.
- (510) Pak Salim terbangun.
 A = O V
 father Salim wake-up-accidentally
 Mr Salim happened to wake up.
- (511) Saya teringat akan keluarga.
 E V O
 I recall-accidentally (about) family
 I happened to remember my family.
- (512) Tuti terkenang akan orang tuanya.
 E V O
 Tuti recall-accidentally (about) parents-her
 Tuti happened to think of her parents.

The prefix ter- is attached to the verb bases duduk, tiarap, bangun, ingat, and kenang. The first two verbs are action locative verbs, the third is an action verb, and the last two verbs are process experiential. Note that the

meaning of duduk *sit* that we take into account in this case is 'assuming the sitting position'. The ter- verbs are still of the same type respectively as the basic verbs. There is, however, an additional meaning as can be seen from the translations, that is, the actions or the processes occur without the intent of the agents or the experiencers. Sentence (508), for instance, conveys a meaning that the patient assumed the sitting position on the chair without his control or intent. Similarly, sentence (511) conveys a meaning that a picture of her parents came accidentally or without her intent to her mind, which caused her to have a certain emotion. In order to account for the notion, we would like to propose that the inflectional feature <accidental> be added to the basic verbs. The inflectional process obviously triggers the affixation of ter-, as can be seen in the above sentences. Let us call this inflection 'accidental inflection'.

In (508) to (510), the Agents which are coreferential with the Objects are realised as surface subjects, and in (511) and (512) the Experiencers are realised as surface subjects. Thus, there are no passive inflections taking place.

Two significant phenomena are observable in sentences (508) and (510), which may be considered as the constraints on the occurrence of the inflectional process. First, the action verbs in (508) to (510), as we have just mentioned above, have coreferential Agents and Objects. In other words, the inflectional process does not occur with action verbs with non-coreferential Agents and Objects.

If it does, it must co-occur with ter- passive inflection as discussed in 5.4.2. Thus sentence (513), for instance, is similar to sentences (489) to (491):

- (513) Buku Toni terambil oleh Sani dari meja
 O V A L
 book Toni be-take-accidentally by Sani from table
 Toni's book was taken accidentally by Sani from the table.

Furthermore, it seems that the inflection in question does not occur with certain action locative verbs, though Agents and Objects are coreferential in the semantic structures of the verbs. This is evident from the fact that sentence (514) for instance, is unacceptable:

- *(514) Toni terdatang dari Jakarta.
 A=O V L
 Toni come from Jakarta.

The basic verb is datang *come*. Other verbs of this type are pergi *go*, lari *run*, tiba *arrive*, and berangkat *leave*. There is an essential difference between the actions designated by these verbs and those designated by the basic verbs in (508) to (510). The above verbs designate long actions, whereas the verbs in (508) to (510) designate short actions. The action of datang *coming* for instance, is a relatively long motion from one place to another. On the other hand, to assume a sitting position as designated by duduk *sit* is a relatively short action. This difference seems to indicate why the feature <accidental> cannot be added to the above verbs. That is to say, it does not seem to be possible that a long action is accidental. It may be noted that the feature <accidental> may also capture the notion of 'suddenness' to some extent, though it does not necessarily do so. In this connection, we can see, even though we may not fully agree with it, why Slametmulyana (1969:351, 353) and some other Indonesian grammarians mention that the two important meanings of the prefix ter- are perbuatan sekonyong-konyong (sudden action) and keadaan yang tak diingin (unwanted state).

Second, the inflection in question seems to occur only with process experiential verbs designating a change with respect to cognition, and not to sensation. Thus, the process experiential verbs *lihat see* and *dengar hear* cannot be inflected as 'accidental' without the occurrence of *ter-* passive inflection as in (493). Finally, we may note as well that accidental inflection occurs only with basic verbs as we can see in (508) to (512).

On the basis of the above discussion, the following conclusions may be drawn:

- (1) Accidental inflection can occur with basic action verbs as well as non-motional basic action locative verbs with coreferential Agents and Objects, and with basic process experiential verbs related to cognition.
- (2) In the inflectional process, the inflectional feature <accidental> is added to the verb.
- (3) The process triggers the affixation of *ter-* in the surface structure.

Two rules of accidental inflection may be formulated as follows:

Accidental Inflection Rule 1:

V action (locative)	—————>>	V action (locative) <accidental>
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verb base	ter + verb base
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- Conditions:
- (1) The action verb has coreferential Agent and Object.
 - (2) The action locative verb is non-motional and has coreferential Agent and Object.
 - (3) The action or action locative verb is basic.

Accidental Inflection Rule 2:

V process experiential	—————>>	V process experiential accidental
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verb base	ter + verb base
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- Conditions:
- (1) The experience designated by the verb is related to cognition.
 - (2) The verb is basic.

Besides what we discussed above, there appears to be a considerable number of *ter-* verbs in BI which raise certain problems. As examples, we provide the following sentences:

- (515) Salim tergelincir.
 A=O V
 Salim slip-accidentally
 Salim slipped accidentally.

- (516) Alex terperosok ke dalam lumpur.
 A=O V L
Alex fall-accidentally into mud
Alex fell accidentally into the mud.
- (517) Sepeda itu terbentur ke dinding.
 O V L
bicycle the bump-accidentally to wall
The bicycle bumped accidentally against the wall.
- (518) Mereka semua tercengang akan kejadian itu.
 E V O
they all astonish-accidentally at event the
The were all taken by surprise by the event.

In the above sentences, the prefix *ter-* is attached to the bases *gelincir*, *perosok*, *bentur*, and *cengang*. Each of these base morphemes cannot be used in a sentence without an affix or affixes, consequently it is semantically unspecifiable. With the prefix *ter-* being attached to them as in the above sentences, they can be specified semantically. Thus, the verb *tergelincir* is an action verb, *terperosok* is an action locative verb, *terbentur* is a process locative verb and *tercengang* is a process experiential verb.

One problem raised by base morphemes such as the above, then, is the fact that they cannot be identified in terms of selectional features. The second problem is the question as to how to account for the fact that they become semantically specifiable after the affix *ter-* is attached to them. In the above sentences, for example, besides the selectional features, the inflectional feature <accidental> appears to be also added to them as can be seen from the English translations. In this respect, we may recall that in section 5.3. we also encountered some reciprocal verbs with characteristics similar to the above verbs with respect to the bases. Two suggestions were made in accounting for the phenomena. First, we may consider that the base morphemes with the affixes together are basic verbs. The second is that the base morphemes, following Lakoff, are considered as hypothetical lexical items. That is to say, hypothetical lexical items such as the above may be inflected as <accidental> and at the same time they become verbs of certain types. Based on this latter suggestion, we may formulate rules like the following:

Accidental Inflection Rule 3:

V hypothetical	— — —>	V action (locative) <accidental>

hypoth. base		ter + hypoth. base

Accidental Inflection Rule 4:

V hypothetical	— — —>	V action (experiential) <accidental>

hypoth. base		ter + hypoth. base

As we pointed out in section 5.3. both suggestions raise certain problems which indicate the inadequacy of the solutions, and we are just unable to provide a more satisfactory analysis at present.

We may note finally that the *ter-* verbs in (515) and (516) are action verbs with coreferential Agents and Objects, and those in (517) and (518) do not have surface direct objects. Thus, none of the verbs can be inflected as passive.

5.6. Summary

In this chapter we have discussed five types of inflection in BI, some of which are divided into different subtypes depending on the conditions in which they may occur. Except for one type of *di-* passive inflection, which occurs postsemantically, the inflections occur semantically. Although some of the inflections have certain effects on the ordering of case roles and subject selection, none of them changes the type of the verb involved in the process. Each of the inflections triggers a certain affixation in the surface structure. The constraints on the occurrences of the inflections in the main reside in the types of the verbs involved, including the special characteristics of the cases required by the verbs. The constraints on the occurrences of the inflections trigger the constraints on the occurrences of the affixations.

In order to have an overall view of the inflectional processes, we summarise them in Table 6 below.

Table 6: Inflections

	1 Types of Inflection	2 Verb Types	3 Basic /Derived/ Incor. verb	4 Special Condition	5 Inflectional features	6 Affixes
1	Iterative inflections					
a	i- iterative inflection	action (experiential benefactive) locative	basic	O = overt	iterative	(meN-)-i
b	ber- iterative inflection	action locative	basic	A = O	iterative	ber-an
2	Excessive inflection	state	basic	-	excessive	ke-an
3	Reciprocal inflections					
a	ber-an reciprocal infl.	action	basic	O = overt	reciprocal	ber-an
b	ber- reciprocal infl.	hypothetical	-	-	reciprocal	ber-
4	Passive inflections					
a	di- passive inflections	(1) action (experiential benefactive) locative	basic/derived incor (no E,B)	O = overt surface direct obj.	passive	di-
		(2) process experiential	basic	O = overt	passive	di-
b	ter- passive inflection	(1) action (experiential benefactive) locative	basic	O = overt	{passive perfective accidental}	ter-

Continued....

5	Accidental inflections	(2) process experiential	basic	O = overt	{passive perfective accidental}	ter-
		(3) action (experiential benefactive) locative	basic/derived	O = overt	{passive capable}	ter-
		(4) action (locative)	incor	O = overt	{passive capable}	ter-
		(1) action (locative)	basic	A = O non-motional act, loc.	accidental	ter-
		(2) process experiential	basic	experience = cognition	accidental	ter-
		(3) hypothetical	-	-	accidental	ter-

NOTES: (1) Column 3 contains further specifications of the verb types involved in the inflections as stated in column 2. The specifications indicate whether the verbs are basic, derived or generated by incorporations. The 'no E,B' between parentheses in line with di- passive inflection indicates that no experiential or benefactive verb is possible.

(2) Column 4 contains the special conditions in which the inflections may occur in addition to conditions stated in other columns.

THE NOTION OF REFLEXIVITY

Before coming to the conclusion of this study, we would like to discuss briefly how the notion of reflexivity is expressed in BI. We provide this additional discussion, because the notion of reflexivity involves a verbal affixation which cannot be handled in any of the last three chapters due to its different characteristic with respect to the process that triggers it.

The notion of reflexivity is conveyed by sentences such as the following:

- (519) Ibu pergi ke pekan.
 A=O V L
 mother go to market
 Mother went to the market.
- (520) Menteri keuangan baru kembali dari Paris.
 A = O V L
 minister finance just return from Paris
 The Minister of Finance just returned from Paris.
- (521) Laki-laki itu bunuh diri.
 A V O
 man the kill self
 The man killed himself.
- (522) Wanita itu gantung diri.
 A V O
 woman the hanged self
 The woman hanged herself.
- (523) Tuti menghias diri.
 A V O
 Tuti make-up self
 Tuti made up (adorned) herself.
- (524) Mereka menjemur diri.
 A V O
 they sun-bathe self
 They sun-bathed.
- (525) Ayah sedang mencukur diri.
 A V O
 father going-on shave self
 Father is shaving.

In sentences (519) and (520), the Agents and Objects are coreferential. Sentence (519) conveys the notion that 'mother moves herself'. A similar interpretation applies also to sentence (520). The sentences, then, convey the notion of reflexivity. That is to say, the action carried out by the Agent affects him (her) self (cf. Anderson 1971:49-50).

In sentences (521) and (522), the Agents and Objects are not coreferential. The Objects are represented by the reflexive pronoun *diri self*. Thus, the Agent nouns and the Object nouns (pronouns) obviously refer to the same entity. The action performed by the agent, then, affects him (her) self. The sentences, therefore, also convey the notion of reflexivity. The difference between sentences (519) and (520), and (521) and (522) is the fact that in the former the Object nouns are totally covert, whereas in the latter they are realised as reflexive pronouns.

In sentences (523) to (525), the Agents and Objects are also non-coreferential like those in (521) to (522). The Objects are also represented by the reflexive pronoun *diri*. In other words, the sentences also convey the notion of reflexivity.

Sentences (523) to (525), however, are not very common, though they are acceptable. The most common sentences are the following:

- (526) Tuti berhias.
Tuti make-up
Tuti made up herself.
- (527) Mereka berjemur.
they sun-bathe
They sun-bathed.
- (528) Ayah sedang bercukur.
father going-on shave
Father is shaving (himself).

As indicated by the English translations, the above sentences convey precisely the same meanings as those conveyed by sentences (523) to (525). In other words, in the semantic structures, sentences (526) to (528) are the same as (523) to (525). However, there are two changes taking place in the surface structures of sentences (526) to (528). The first change is the absence of the Object nouns (pronouns), and the second is the fact that the prefix *ber-* is attached to the verb bases. Since the two groups of sentences have exactly the same semantic structures, it does not seem possible that the changes are caused by a derivational process. It also does not seem possible that they are caused by incorporations, since the Object nouns are not observable in the verbs. We may conclude, therefore, that the changes are due to postsemantic deletions of the Object nouns. In other words, the Object nouns (pronouns) are deleted postsemantically, and this deletional process triggers the affixation of *ber-* to the verb bases. Note that the prefix (*meN-*) in (523) to (525) is semantically vacuous, therefore, it is omissible. Anderson (1977:50) on the basis of data from English also suggests a similar analysis with respect to what he calls "phrasal reflexives" which seem to be equivalent to sentences (523) to (525). Cook (personal communication) also suggests a similar analysis.

The notion of reflexivity in sentences (523) to (525) is marked in the surface structure by the reflexive pronoun *diri self*. In (526) to (528), on the other hand, the notion is marked by the prefix *ber-*. This phenomenon appears to be in conformity with Lyons' assertion (1971:362) that the identity of subject and object in an explicitly reflexive sentence may be overtly marked by a pronoun, or a certain affix attached to the verb-stem.

As we observed earlier, sentences (521) and (522) also convey the notion of reflexivity, and in these sentences the Objects are also represented by the reflexive pronoun *diri*. This object noun, however, cannot be deleted as in sentences (523) to (525). Sentence (529), for instance, is anomalous:

- * (529) *Laki-laki itu bunuh.*
Man the kill

Why are the object nouns in these sentences not deletable, while in (523) to (525) they are?

Our investigation indicates that an answer to this question may reside in the semantic characteristics of the Object nouns as well as the verbs. As we can see, the reflexive pronoun *diri* in sentences (521) and (522) refers essentially to the bodies of the agents as a whole, whereas in (523) to (525) it refers actually only to certain parts of the bodies. Thus, in (523), for instance, *diri* refers to face, hair, etc. In other words, the Object nouns refer to inalienable possessions of the agents. With respect to the semantic characteristic of the verbs, we can see that the verbs in (523) to (526) designate the actions which are related generally to beautification, whereas the verbs in (521) and (522) do not designate such actions.

The significance of the involvement of this type of action is evident from the fact that the Object noun in (530) cannot be deleted, though it refers to an inalienable possession of the agent, since sentence (531) is unacceptable:

- (530) *Toni menampar diri (sendiri).*
 A V O
Toni slap self
Toni slapped himself.

- * (531) *Toni bertampar.*
Toni slap

As indicated by the English translation the verb *menampar* designates an action which is not related to beautification. The Object noun is also *diri*, and it refers to a certain part of the agent's body, normally the cheek. Note that in BI the noun *sendiri*, which has the same meaning as *diri*, is sometimes used to add emphasis to the notion of reflexivity.

Finally, we may note as well that the affixation of *ber-* cannot occur with verbs such as those in (519) and (520), since they do not have surface objects. In other words, deletional processes are impossible. Other words of this type are *terbang fly*, *datang come*, *duduk assume a sitting position*, *turun descend* and *naik ascend*. The verbs *berterbang*, *berdatang*, *berduduk*, *berturun* and *bernaik* do not exist. The verb *berlari run*, however, is common as in (532):

- (532) *Kuda itu berlari.*
 A = O V
The horse ran.

The prefix *ber-* in this sentence does not seem to mark any notion, since it can be omitted. Thus, sentence (533) is also common:

- (533) *Kuda itu lari.*
 A = O V
The horse ran.

On the basis of this fact, we may consider that the affixation of *ber-* to the verb base is an idiosyncrasy. This consideration is also supported by the fact that we have not found any other example of such an occurrence.

From what we have described above, we may draw the following conclusions:

- (1) The notion of reflexivity in BI is conveyed in two ways: (a) by the use of action verbs with coreferential Agents and Objects in their semantic structures and (2) by the use of the reflexive pronoun *diri* as the surface object.
- (2) The reflexive pronoun *diri* is commonly deleted postsemantically, if it refers to an inalienable possession or some inalienable possessions of the agent, and if the action designated by the verb is related to beautification.
- (3) The deletion mentioned in (2) triggers the affixation of *ber-* to the verb base, and this prefix marks the notion of reflexivity.

CONCLUSIONS AND SUGGESTIONS

1. Conclusions

By applying the theoretical framework discussed in Chapter I, which is an eclectic incorporation of Chafe's model of semantic analysis, Fillmorean case grammar, and Cook's case grammar matrix, we have shown in this work that there are three major types or processes which trigger verbal affixations in the surface structure of BI, namely, derivation, incorporation, and inflection. The first type is a semantic process, the second is a postsemantic process, and the third can be either a semantic or a postsemantic process. Each of these types includes several subtypes of processes as can be seen in Tables 4, 5 and 6. In addition, a special type of postsemantic process, deletion, also triggers a verbal affixation, and it involves the notion of reflexivity as discussed in the additional part preceding these concluding statements.

In the process, we have shown that there are certain features involved. The most crucial features are the selectional features of the basic verbs. This conclusion is based on two main factors which can be seen in the derivational, incorporational, and inflectional rules we have proposed. The first factor is that the constraints on the occurrences of the processes, which restrict the occurrences of the affixations in the surface structure, can be determined in terms of the selectional features. The second factor is that the syntactic correlates of the affixations are at the same time describable, since each selectional feature dictates the presence of a certain case. In addition, the selectional features have enabled us to discover that the prefix *meN-* is semantically vacuous when attached to certain action verbs; this explains why it can be omitted without any semantic loss. As we stated in the introduction, the omission of the prefix is an intriguing phenomenon that has not been explained in the current grammars of BI.

With respect to incorporational processes, it has been shown that in addition to the selectional features of the verbs involved in the processes, the semantic features of the nouns that are incorporated also play a significant role in determining the constraints in question.

Finally, it has been shown that a distinction between the affixations which form the same part of speech can be made clear in terms of the selectional as well as the inflectional features postulated in this work. For example, the semantic difference between the verbs *membasahi*, *membasahkan* and *memperbasah*, which is generally not made clear in most of the current grammars of BI, and which often confuses not only the foreign but also the Indonesian learners of BI, has been explained succinctly.

2. Suggestions

The conclusions we have drawn above imply that this work on the whole has reached the main goals stated in the introduction. There are of course a few problems which have been treated only in the form of suggestions, among which is the problem of the affixations that occur to what we proposed to call 'hypothetical lexical items', following Lakoff.

The above conclusions also imply that the verb classification based on selectional features, such as the one proposed by Chafe and developed by Cook, is a useful tool in making a semantic analysis of affixations, at least in languages like BI. Further implication is that a semantic analysis of affixations can be more adequately made, if, besides a more precise and exhaustive verb classification, the semantic features of the nouns representing the case roles can be sufficiently specified.

As stated in the introduction, this work is concerned only with verbal affixations. In other words, nominal affixations, that is, the affixations which function to form nouns, are excluded. The problems of nominal affixations, which are also crucial in the grammar of BI, can probably be handled more adequately by using a semantic model of analysis like the one applied in this work. This possibility as well as the problems indicated in the preceding paragraphs are open to future research.

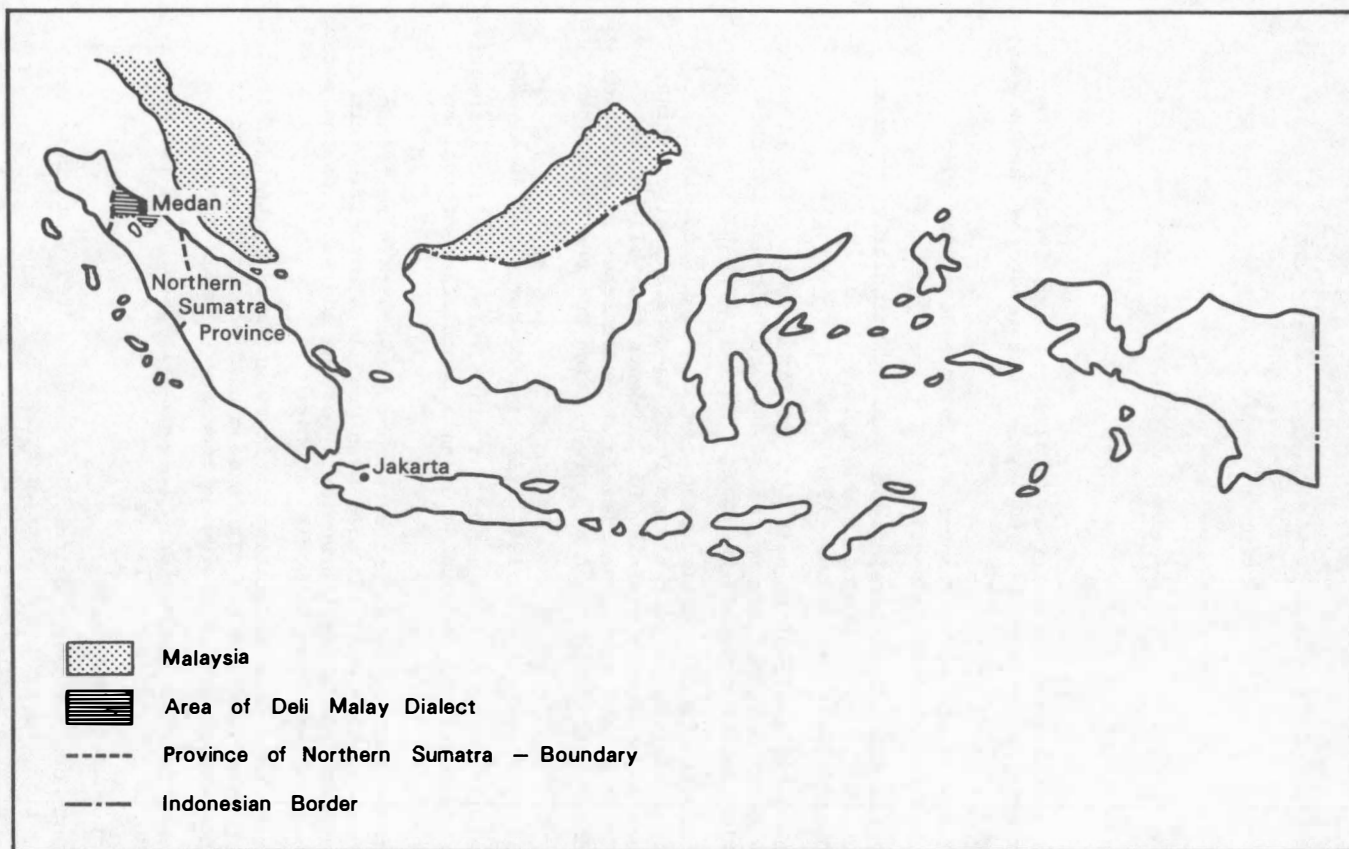
APPENDIX I

CURRENT INDONESIAN ALPHABET

Letters	Pronunciation	Letters	Pronunciation
A a	/a/	N n	/en/
B b	/be/	O o	/o/
C c	/ce/	P p	/pe/
D d	/de/	Q q	/ki/
E e	/e/	R r	/er/
F f	/ef/	S s	/es/
G g	/ge/	T t	/te/
H h	/ha/	U u	/u/
I i	/i/	V v	/fe/
J j	/je/	W w	/we/
K k	/ka/	X x	/eks/
L l	/el/	Y y	/ye/
M m	/em/	Z z	/zet/

Combination of letters

kh	/x/
ng	/ŋ/
ny	/ɲ/
sy	/ʃ/



APPENDIX II: MAP OF INDONESIA

NOTES

1. This estimate is quoted from the outlines of the speech delivered by the Minister of Home Affairs on April 15, 1976, which was issued by the Indonesian Embassy, Washington, D.C., July, 1976.
2. This official status is stated in Chapter XV, Article 36 of the 1945 Constitution of the Republic of Indonesia.
3. Full accounts of the historical development of BI, particularly the socio-political aspects of it, can be found in Alisjahbana (1956, 1957, 1965; 1971:179-186), Usman (1964), and Teeuw (1961).
4. We follow Macdonald (1976:24-28) in using the prefix morpheme *meN-* in which the letter N indicates that *me-* may be followed by certain nasal sounds. Further information can be found in the book.
5. This is a free translation of 'Institut Keguruan dan Ilmu Pendidikan' (I.K.I.P.). This institute is of the same level as general universities, but it specialises in providing training for students who will become teachers at the high school level, and developing researches in education. Some of the graduates will also teach at universities and the Educational Institutes themselves.
6. Mees (1954:124-125), Slametmulyana (1969:311), and Fokker (1972:40-41, 56).
7. Lakoff's proposal (1970) concerning major and minor rules handling respectively regular cases and exceptional ones; also Green's postulation of real and putative exceptions (1974:3).
8. *Pak* is the shortened form of *bapak* which basically means *father*. Since independence, however, this word has also been used as a honorific term of address and reference indicating the seniority of the addressee or the person referred to in age and also in social status.
9. *Si* is used in front of a name indicating intimacy or equality between the speaker and the person referred to. It is also used when the speaker is older. Today, however, there is a growing tendency to omit '*si*'.
10. *Bu* is the shortened form of *ibu* *mother*. Like *pak*, it is a honorific term used in referring to or addressing ladies.
11. *Seekor* is a count-noun for animals.
12. *Seorang* is a count-noun for human beings. It may be noted that there is a growing tendency today to omit such count-nouns.
13. PSMS is a soccer team in Medan.
14. Grasshopper is a Swiss soccer team.

ADDITIONAL INFORMATION

The following additions were supplied by the author after completion of the typesetting of the book.

page 45:

Besides, these derived verbs can take the temporal modal *sedang* as in (110), and can be used in command imperative sentences as in (115)-(118):

- (115) Lebarkan jalan itu!
 V O
 widen road the
 Widen the road!
- (116) Bersihkan pekarangan sekolah itu!
 V O
 clean yard school the
 Clean the school yard!
- (117) Resmikan konferensi itu!
 V O
 officiate conference the
 Officiate at the conference!
- (118) Gembirakan orang tuamu dengan hadiah natal!
 V E O
 make pleased person old-your with present Christmas
 Please your parents with a Christmas present!

page 57:

- (168) Salim memperhitam cairan itu.
 A V O
 Salim make-blacker liquid the
 Salim made the liquid blacker.

page 116:

Morphologically, the affixes *ber-an* are attached to the verb bases *terbang fly*, *lari run*, *datang come*, and *masuk go into* in the above sentences. These verb bases are action locative verbs, and they are respectively of the same type as the verbs in the above sentences, as we can see in (425) to (428):

- (425) Burung itu terbang ke hutan.
 A = O V L
bird the fly to wood
The bird flew to the wood.
- (426) Anak itu lari ke luar.
 A=O V L
child the run to outside
The child ran outside.
- (427) Tamu sudah datang ke tempat itu.
 A=O V L
guest already come to place the
The guest has come to the place.
- (428) Murid itu masuk ke dalam kelas.
 A = O V L
pupil the go into class
The pupil went into the class.

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